American Perfumer AND AROMATICS

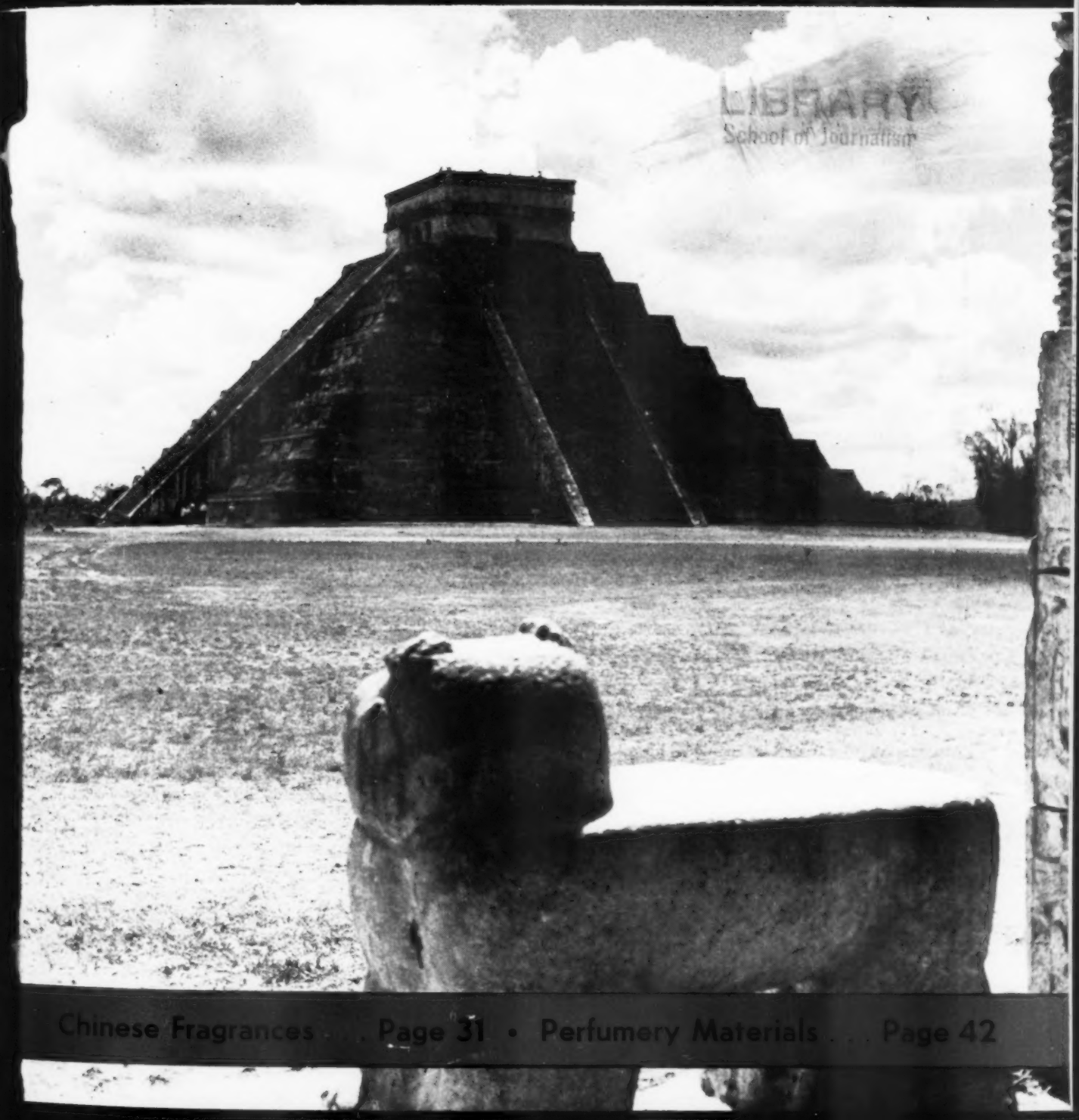
COSMETICS
TOILETRIES
SOAPS
FLAVORS
AEROSOLS
ESSENTIAL OILS

MONTANA STATE UNIVERSITY LIBRARY
APR 24 1958
RECEIVED

APRIL 1958

THE MAGAZINE OF TASTE AND SCENT

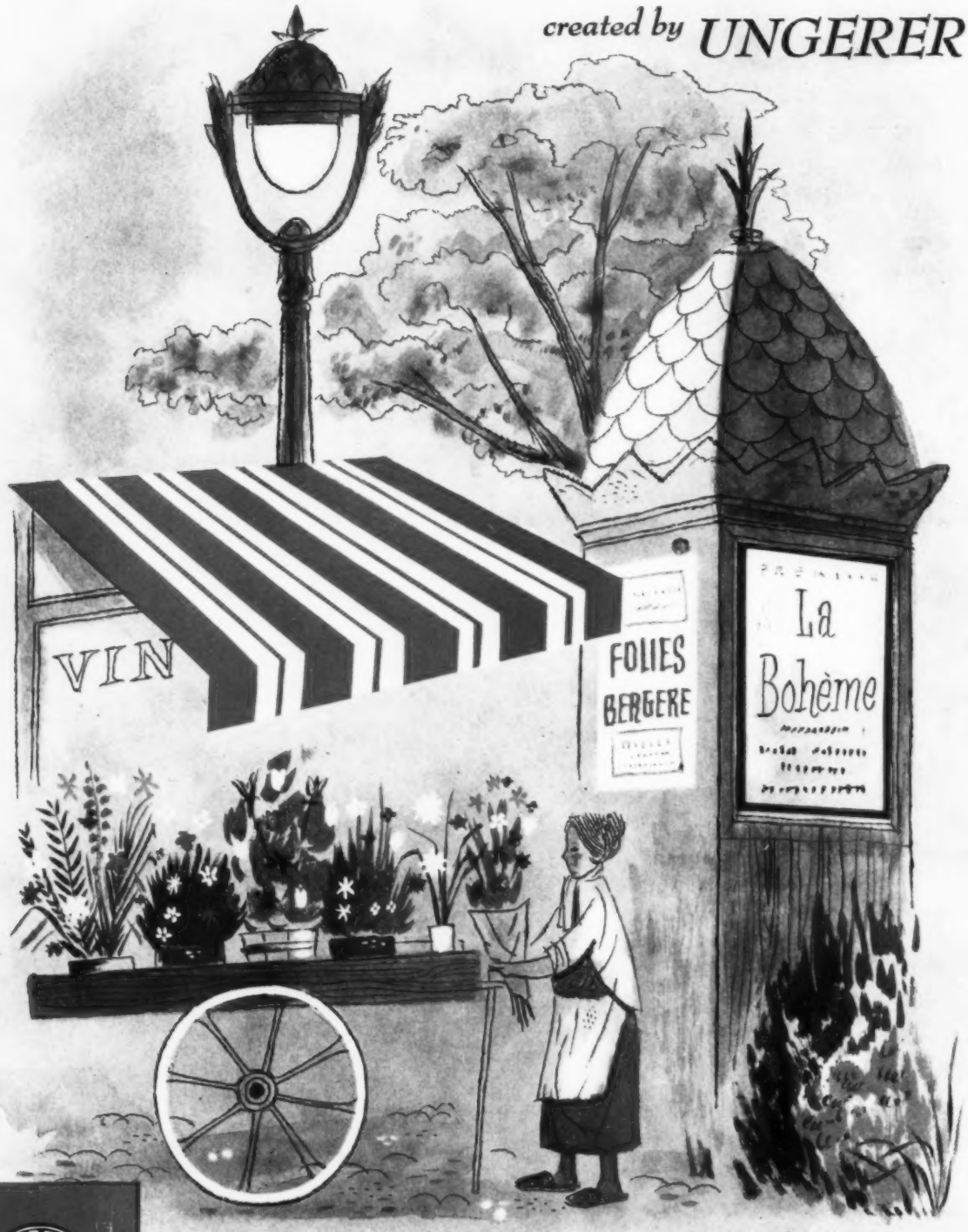
LIBRARY
School of Journalism



Chinese Fragrances . . . Page 31 • Perfumery Materials . . . Page 42

A TOUCH OF PARIS *in fine floral basic materials*

created by UNGERER



UNGERER & CO. NEW YORK

Ungerer & Co.

UNGERER, VIDAL-CHARVET
Paris, France

161 Avenue of the Americas, New York 13, N. Y.
plant and laboratories
Totowa, N. J.

CHICAGO • BOSTON • PHILADELPHIA • ST. LOUIS • LOS ANGELES • ATLANTA

BEN SOMOROF

Give YOUR PRODUCT the look of elegance with *Lambert* engraving

There is no substitute for engraving and engine turning
when you wish to add a look of elegance to your product.
But elegance and high cost are *not* synonymous with Lambert engine turning
. . . for here in Attleboro we have coupled the art of
single tool craftsmanship with our exclusive *multitool* process,
to give you *quality in quantity*.

Quality-in-Quantity
engine turning
makes elegance practical

If you would like us
to ornament a sample
— to demonstrate how
Lambert engine turning can make
your product elegant in all but cost
— please write enclosing several shells.
There is no cost or obligation.

Lambert Engraving Company,
Attleboro, Massachusetts.

AMERICAN DISTILLED OILS...

Produced at our Patchogue, L. I., N. Y. Factory

OILS

BALSAM PERU	GERANIOL	ORRIS LIQUID, CONC.
CASCARILLA	NUTMEG	PATCHOULY
CELERY	OLIBANUM	PIMENTO
CITRONELLOL	OPOPONAX	SANDALWOOD
CLOVE		STYRAX

also LINALOOL • CITRAL • EUGENOL • RHODINOL

RESIN LIQUIDS

OLIBANUM	ORRIS	BALSAM PERU
LABDANUM	BENZOIN	BALSAM TOLU
OPOPONAX	STYRAX	TONKA

ESSENTIAL OILS • AROMATIC CHEMICALS • PERFUME MATERIALS • COLORS

OFFERING ROSE ABSOLUTE

YEARS OF CONTINUOUS QUALITY SERVICE—

OVER

suppliers & manufacturers of—

Essential Oils • Aromatic Materials • Flavors

GEORGE LUEDERS & CO.

Established 1885

427 WASHINGTON ST., NEW YORK 13, N. Y.

CHICAGO • CAMDEN, N. J. • SAN FRANCISCO • MONTREAL

WAUKESHA, WIS. • TORONTO • SHREVEPORT, LA.

contents:

RESEARCH

Progress in Perfumery Materials—I ..... *Paul Z. Bedoukian, Ph. D.* 42
Spectacular scientific advances made in the past year

Cosmetic Bases—the Perfumer's Concern ..... *Dr. Oliver L. Marton* 40
Factors for perfumers to consider in formulating products

PRODUCTION

Pressurized Packaging for Cosmetics ..... *Morris J. Root* 35
How nitrogen propellents open broader uses for aerosols

Perfumers Hear Experts on Problems 38
A. S. P. Symposium covering various phases of perfuming

FLAVOR SECTION

Vanilla Evaluation ..... *H. P. Burchfield, E. A. Prill & D. Fisher* 49
Tentative procedures by paper chromatography

MANAGEMENT

New Fragrances of an Old Nation ..... *Chiang Hsi-Chang* 31
Developments of interest to manufacturers

T. G. A. Estimate of Cosmetic Sales at Retail in 1957 67
Annual survey shows increases during the past year

Use of Collapsible Tubes Increasing ..... *Martin Z. Post* 70
Advantages of tubes for cosmetics responsible for increase

DEPARTMENTS

News 9, 75
Aerosol Notes ..... *Dr. Winston Reed* 59
Desiderata ..... *Maison G. DeNavarre* 19
Questions and Answers 6
Packaging and Promotion 56
Aeroscripts ..... *Jack Pickthall* 26
New Products and Ideas 60
Book Reviews 64
Market Reports 87
Index to Advertisers 90

COVER: El Castillo, Chichen Itza, Yucatan. Courtesy of the Mexican Gov't Tourist Information Service.

VOL. 71, NO. 4

APRIL, 1958

American Perfumer AND AROMATICS

J. H. MOORE, Jr. *President*

M. G. DE NAVARRE *Technical Editor*

WM. LAMBERT *Editor*

JOHN H. MULLER *Vice President and Business Manager*

WALTER M. BONE *Assistant Editor*

A. van der SHAW *Art Director*

WINSTON H. REED *Aerosol Editor*

ROBERT E. SANFORD *Circulation Director*

MARY HARRIS *Advertising Production Mgr.*

LOS ANGELES
McDonald - Thompson, Richard Eubanks, 3727 W. Sixth Street, Los Angles 5, Calif. Dunkirk 7-5391

CHICAGO
868 Peoples Gas Building, 122 So. Michigan Ave., Chicago 3, Ill.

EDITORIAL AND EXECUTIVE OFFICES
48 W. 38th St., New York 18. N. Y. LOngacre 5-3320

SAN FRANCISCO
McDonald-Thompson, Morton McDonald, 625 Market Street, San Francisco 5, Calif. Yukon 6-0647

PUBLISHED MONTHLY by Moore Publishing Company, Inc. Publication office: Emmett St., Bristol, Conn., U.S.A. Editorial and Executive Offices: 48 W. 38th St., New York 18, N.Y. J. H. Moore, Chairman of the Board; J. H. Moore, Jr., President; Harold W. Springborn, Vice President; G. R. Brennan, Secretary. Subscription Rates: U.S.A., Possessions and Canada, $5 one year; 50c per copy. Foreign, $15 one year. Entered as second class matter, January 12, 1950, at the Post Office at Bristol, Conn., under act of March 3, 1879. Moore Publishing Co., Inc., is publisher also of Advertising Agency Magazine, American Printer & Lithographer, Gas Age, Gas Appliance Merchandising, Industrial Gas, LP-Gas and Brown's Directory of American Gas Companies. Address all correspondence to editorial and executive offices.

(Cable Address: Robinpub, N. Y. Volume 71, No. 4. Copyright 1958, Moore Publishing Co., Inc.)

Owens-Illinois Assures You A Complete Packaging Approach

Co-ordinated Research

Pure research into fabrication of glass, *packaging research* into processing and handling methods in customer plants, *market research* into consumer attitudes. All add up to greater packaging value.

Engineered Design

At Owens-Illinois, your package's *three* needs are taken into account: 1) Considerations of its function in the retail store, 2) its operating efficiency, and 3) its consumer utility.

The Right Container

Versatility of facilities and talents make O-I your best source of supply. In container development—beauty, utility, tradition are blended in the right proportions for your product's needs.

The Right Closure

Through long and continuing research O-I has developed the most advanced metal and plastic closures. Helping you choose the right closure is another function of O-I's packaging service.

Needed Fitments

O-I specialists are keenly aware of sales benefits derived from plastic shaker and pour-out fitments which are not "gadgets" but which increase consumer satisfaction with your product.

Merchandising Cartons

Modern cartons such as the new "Openized Carton" with easy-open flaps are developed from study of their service to you in retail store and warehouse . . . on filling line or in transit.

These design models are examples of the types of "glamour packages" available through Owens-Illinois custom-design service.

Your products for glamour should be packaged in glamour

Striking and exciting packaging for toiletry products pleases every woman... is a factor in her personal selection. On dressing table or any shelf the package adds a touch of elegance... serves as a constant reminder of a product's quality.

Owens-Illinois' designers and packaging experts are ready to work with you to provide a distinctive, personal container for your toiletry preparations. The right container requires eye-appealing form, of course ... plus ease of handling in the filling line, lasting product protection and ease of use in the home.

O-I's Complete Packaging Approach offers more than the container alone... it provides artistic label design, the needed fitments, most suitable closures, and protective, merchandising cartons.

Call on Owens-Illinois for the complete salespackage to take your product into your customers' homes.

DURAGLAS CONTAINERS
AN (O) PRODUCT

OWENS-ILLINOIS
GENERAL OFFICES • TOLEDO 1, OHIO

QUESTIONS & ANSWERS

1281: FINGERNAIL HARDENER

Q. *We would like a formula for a fingernail hardener for brittle and splitting nails in liquid and in paste form. C. M. A., Georgia.*

A. We cannot suggest anything to you for such a product since we do not know its composition. Off hand, it would occur to us that some material that would be a film forming, keratin substantive or modifying substance would be what you would use for this purpose. Beyond this we are unable to make any further suggestions.

1282: NEW HUMECTANT

Q. *We read with interest comments on a new humectant in a recent issue. It would be appreciated if you would assist us in learning more about this material and in obtaining a test sample. A. F. B., Rhode Island.*

A. The new humectant is Hyprin-GP25 supplied by The Dow Chemical Co., Midland, Mich. It is a hydroxypropyl glycerin.

1283: BUBBLE BATH

Q. *Can you send us a formula for a good bubble bath based on low cost ingredients? If this is not possible, please advise where we might obtain such information. B. F. C., Iowa.*

A. Probably the best all-around bubble bath ingredient is one of the spray-dried sodium alkyl aryl sulfonates, such as Nacconol made by the National Analine Div., Allied Chemical and Dye Corp. or Ultrawet made by the Atlantic Refining Co. If you will write these companies, they will send samples and prices. You perfume the product, and away you go!

1284: DRY SHAMPOO

Q. *Kindly send us a modern formulation for dry shampoo in powder form and a formulation for instant neutralizer for cold permanent waving. F. L. P., Denmark.*

A. If you are speaking of a modern type shampoo, we suggest you get a material such as sodium lauryl sulfate which contains about 25 or 30 per cent active material. This product, as is, makes an excellent shampoo powder after it has been suitably perfumed and tinted if desired. As regards the instant neutralizer for permanent cold waving, to our knowledge these are still bromate type products with a somewhat higher concentration of bromate. Not having analyzed any recently, we cannot give you any exact information, but we believe you can get the results you want by taking one of the regular bromate type neutralizers and increasing its concentration somewhat.

1285: HAIR WAX

Q. *We would like a formula for a liquid hair wax for the short type or "butch" haircuts. What we have in mind is one that contains some alcohol so that when applied to the hair the alcohol will evaporate and leave the wax or equivalent material on the hair. The finished solution should be clear and not cloud when cool. D. L. F., Minnesota.*

A. To be effective, your product will have to contain a very high concentration of alcohol. This would make the product comparatively expensive. There are few materials that are sufficiently soluble in alcohol which would give the necessary hair dressing properties to a "butch" haircut from an alcohol solution. As you know, the products sold on the market are mostly molded products with a rather high wax content. You could achieve this by making an emulsion of materials with water as the emulsifying agent. As the water dried out, you could end up with the waxy material being left behind. For this purpose, you would probably want a high wax content, small amount of mineral oil to act as plasticizer, a little lanolin for its tacky character which is necessary for good hair dressing properties. You might want to add a little carboxymethylcellulose or methyl cellulose to the product to give it still further hair dressing properties. We suggest you try one of the many hair dressing formulas that can be found in any of the cosmetic textbooks, copies of which you probably have. Just keep in mind that you should have a fairly high wax content, a comparatively low mineral oil content to get good hair dressing properties for this type of hair cut.

"Bulgaflor"

AN INVITATION FOR PERFUMERS TO RETURN TO THE BULGARIAN ROSE NOTE AT A REALLY LOW COST.

BULGAFLOR IS A COMPLETE SYNTHESIS —NO NATURAL OTTO ADDITIVE.

INFORMATION & SAMPLES ON REQUEST.

SYNAROME CORPORATION of AMERICA

Telephone GR. 7-6313

24 East 21st St. New York 10, N. Y.

Division of AMERICAN AROMATICS, INC.

INDUSTRY'S STANDARD FOR OVER 100 YEARS...

Atlas

COSMETIC COLORS

Recognized for their superior working qualities, incomparable brilliance and dependable uniformity.

Used in the United States and throughout the world

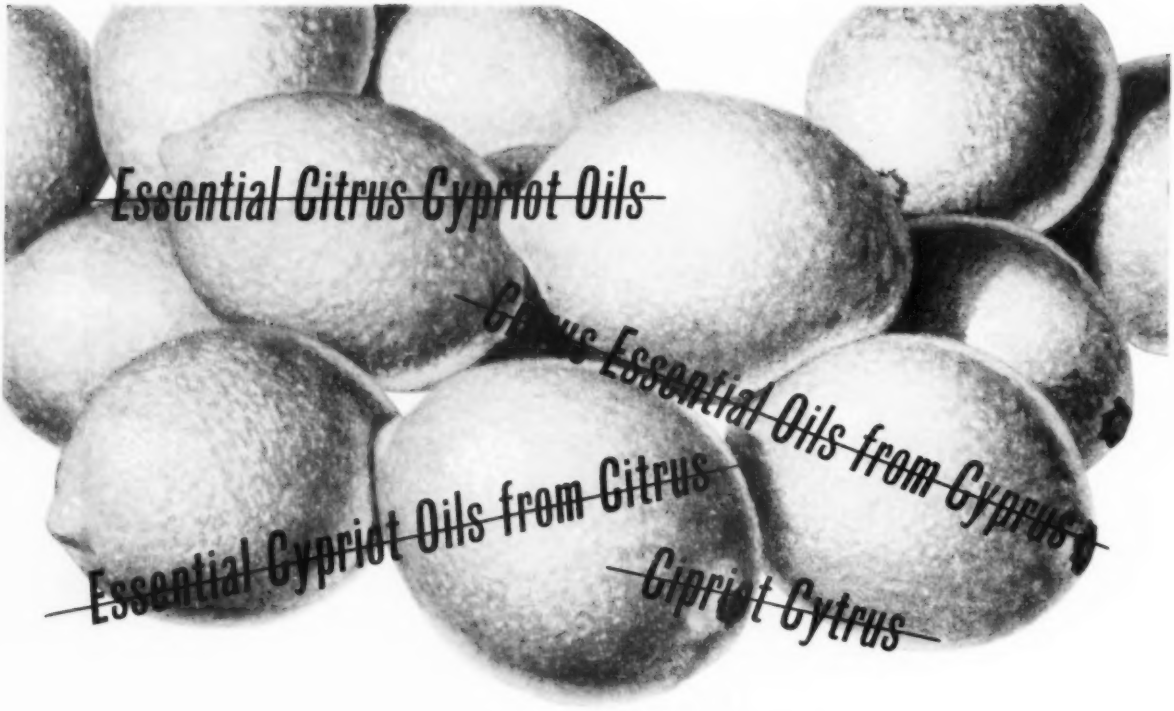
FIRST PRODUCERS OF CERTIFIED COLORS

H. KOHNSTAMM & COMPANY Inc.

ESTABLISHED 1851

89 PARK PLACE, NEW YORK 7 • 11-13 E. ILLINOIS ST., CHICAGO 11 • 2632 E. 54 ST., HUNTINGTON PK., CALIF.

BRANCHES IN OTHER PRINCIPAL CITIES OF THE U.S.A. AND THROUGHOUT THE WORLD



CYTRUS FROM CIPRUS?

YOU WILL AGREE that worthwhile citrus oils must retain their delicate original flavour, and must be absolutely pure. Lanitis produce such oils in Cyprus. The 1957 supply of Lanitis oils is of superb quality. If you want samples we will send them, proudly send them, because they are derived from the fruit by the *very latest methods*. These entail the minimum contact of oil with water during the process of oil extraction. No wonder Lanitis oils are comparable with oils produced anywhere else in the world. Write to:

LANITIS BROS. LTD. P.O. BOX 500, NICOSIA, CYPRUS

CITRUS OILS CITRUS PASTES CLEAR ALCOHOLIC FLAVOURS HYDROSOL FLAVOURS CITRUS CRUSHES

LAST MINUTE NEWS . . .

Fritzsche Brothers Inc. Opens Affiliate in Argentina

Fritzsche Brothers Argentina, S. A. with offices, plant and manufacturing facilities has been opened in Buenos Aires, Argentina by Fritzsche Brothers Inc., New York, to supply South American manufacturers with essential oils, perfume and flavor compounds of the same type, quality and uniformity as those available to United States manufacturers through the parent concern. This makes it possible for South American branches of large U. S. toiletry, beverage, flavor, food and pharmaceutical companies to get delivery direct from the Argentina affiliate. Plans for the new affiliate were in preparation for over a year according to President John L. Cassullo.

Personal Deodorant for Dogs Developed by La Bora, Inc.

A dog deodorant and freshener, Dogette, developed by La Bora, Inc. Chicago 54, Ill. is about to be marketed. The package won an aerosol award last December. The product is literally a personal deodorant for dogs or perhaps a cosmetic (dog-metic) containing a suitable fragrance. Other products are under consideration by the company. It is estimated that there are about 25,000,000 dogs in the United States.

F. T. C. Promises Secrecy for Procter & Gamble Sales Data

Carefully guarded records of the promotion and advertising activities of the Procter & Gamble Co. have been turned over to the Federal Trade Commission for its anti monopoly hearings in connection with the purchase of the Chlorox Co., after counsel for Procter & Gamble Co. obtained a promise from the FTC examiner that the data and expenditures would not be placed on record, aired in open court or otherwise be made available to competitors. Counsel for Procter & Gamble Co. emphasized that giving out figures on expenditures would enable competitors to make an analysis of methods of promotion and distribution which would be injurious to the company. The government is attempting to show that Procter & Gamble is able to acquire a medium sized business and build up its sales volume to national proportions by elaborate and expensive advertising, premium awards and other promotion. Since Procter & Gamble acquired Chlorox no changes in the method or amount of promotion have been made.

Manufacturer Held Accountable for Claims Made in Advertising

A consumer may sue a manufacturer on the basis of warranty if he suffers harm because the product is not of the quality the manufacturer's advertising claimed it to be according to a decision of the Supreme Court of Ohio in the case of Mabel Rogers vs Toni Co. Mabel Rogers sued the Toni Co. division of the Gillette Co. for $30,000 on the warranty *in the advertising* that the Toni home permanent is very gentle. She claimed that she lost nearly all of her hair after using the Toni product, despite the fact that she followed all directions. When she used the product she claims, her hair became gummy and when the curlers came out so did her hair to within half an inch of the scalp. In its decision the court said "There is a growing number of cases which, as an exception to the general rule, hold that, as to foodstuffs and medicines, a warranty of fitness for human consumption carries over from the manufacturer to the ultimate consumer regardless of contract. It would seem but logical to extend the rule to cosmetics and other preparations." The decision could have widespread consequences in advertising and labeling particularly in the cosmetic field. As the Supreme Court of Ohio decided only on whether "express warranty" was sufficient cause for action not on proof of Mrs. Rogers injury, it had no immediate concern as to whether she could prove her injuries in a trial court. Accordingly the case has been returned to the lower court for trial. The requirement of proof is still the same as it has always been in negligence actions. In substance the effect of the Supreme Court of Ohio ruling is that a consumer may sue a cosmetic manufacturer on the basis of warranty because the product is not of the quality the manufacturer's advertising claimed it to be.

Hoffman-LaRoche Enters Proprietary Field with Hair Product

A new division of Hoffman-LaRoche, Montclair Laboratories, has been established to market proprietaries. The first product will be Pantene a scalp and hair conditioner retailing for $2 which has been marketed widely by the company in other countries. Pantene is a vitamin enriched lotion containing panthenol, a B vitamin. It will be offered primarily as a man's product.

Developments in Translation Discussed by Chemists

Developments in translation services were considered at a forum sponsored by the library committee of the New York Chemists Club March 31. Plans for English translations of foreign technical literature, particularly Russian, were outlined.

Information About Contents of Russian Books and Articles

The Monthly Index of Russian Accessions is the new name of the List which has been published for the past decade by the Library of Congress. Similarly the East European Accessions List became, April 1, the East European Accessions Index. Both monthly publications are more than mere book lists as they contain information about the content of new Russian and East European books and articles. They do not contain translations of entire books and articles. Each Index gives in English a monthly account of new material in a variety of subject fields. The Monthly Index of Russian Accessions sells for $12 per year and the East European Accessions Lists sells for $10 per year in the United States. The Government Printing Office handles all sales.

Little Known Trade Channels of Giant Market Charted

Ten "off the beaten path" distribution channels feeding a multibillion dollar a year market are charted in "U. S. Directory of Plus-Sales Markets" issued by Sales Directories Corp. It sells for $20. The combination handbook and directory according to the publishers was created to fill the gap between buyer and seller in ten individual markets which account for a total sales volume of 31 billion dollars. The market is claimed to constitute the nation's largest unexplored trade territory to thousands of small and medium-sized companies.

Perfumed Plastic Flowers for U. S. Made in Puerto Rico

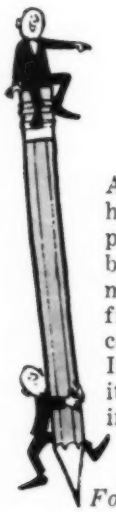
Perfumed plastic flowers will soon be produced in Puerto Rico for the American market according to the Economic Development Administration of the Commonwealth of Puerto Rico. The simulated flowers use fragrances supplied by Parfums Legrand of Paris, France. They look authentic in all details and have the same fragrance as their natural counterparts but unlike the natural flowers they are washable in soap and water. Starting this month 5,000 plastic flowers per day will be shipped out of Consolidated Plastics Co's new 6,000 sq. ft. facilities in San Juan. The plastics used are polyethylene and polyvinyl chloride converted into finished flowers by extrusion and injection molding in a patented mold. Production will include plastic reproductions of flowers and plants found in Europe and the United States and a new line will include tropical flowers and leaves of Puerto Rico. For hospitals and allergy sufferers the company will supply flowers without any fragrance.

Toothpaste Manufacturers Adopting Aerosol Containers

For the past decade manufacturers of toothpaste have been stressing improvements in their products such as chlorophylls, ammoniates, anti enzymes and fluorides but recently some of the larger ones have turned to the package—the aerosol container. Colgate Palmolive Co. is offering its Colgate Dental Cream with Gardol in an aerosol container; Procter & Gamble Co. is test marketing its Gleem toothpaste in an aerosol container; Weco Products Co. has launched Dr. Wests toothpaste in an aerosol container; Carter Products is marketing Snow White toothpaste in an aerosol; Rexall Drug Co. is offering a toothpaste in an aerosol package; and the Lever Bros Co. is test marketing a pressurized Pepsodent toothpaste for which advertising is being prepared by a large Chicago agency. One other of the large companies, Bristol-Myers Co. is now in the aerosol derby with Touch-n-Brush Ipana toothpaste. Unlike the aerated mists and sprays which have been the mainstays of the aerosol packaging field the contents of these aerosols are viscous. The usual propellent is nitrogen which does not mix with the product but exerts a steady, easy pressure on the toothpaste without affecting its consistency of flavor.

special
note
to the
perfumer

check first with Verley



announcing AMBRETTOGENE®

A true Macrocyclic Musk of highest possible purity. A solid product at room temperature, but its crystalline structure makes it readily soluble. The fragrance is markedly reminescent of Ambrette Seed concrete. Its power and influence on tonality encourages exhaustive testing, particularly on the skin.

For aromatic materials . . .
for new ideas —
check first with
Albert Verley & Company.

®Registered Trade Mark

AMBRETTOGENE®. . .
extremely useful in
Soaps, Perfumes,
Cosmetics, Aerosols.

SEND FOR SAMPLE . . .
One pound lots, $12.00 per pound
Prices proportionately lower
in larger quantities.

Albert Verley & Company

1375 EAST LINDEN AVENUE, LINDEN, NEW JERSEY
1018 S. WABASH AVENUE, CHICAGO 5, ILLINOIS
21 EAST 40th STREET, NEW YORK 10, NEW YORK
MEFFORD CHEMICAL CO.
5353 JILSON STREET, LOS ANGELES 22, CALIF.

ALBERT VERLEY & COMPANY

• Synthetic Aromatic Products and Organic Isolates • Bouquets and Finished Compositions
• Synthetic Flower Oils and Aromatic Bases • Essential Oils

SMART MERCHANDISING STARTS YOUR PROFIT PICTURE!

Product Performance Keeps It Running

REHEIS CHLORACEL

BASIC ANTI-PERSPIRANT INGREDIENT FOR GELS

(sodium aluminum chlorhydroxy lactate complex)

– available as a 40% w/w solution for use in making Cologne type sticks.

The merchandising techniques for introducing customers to your anti-perspirant and deodorant product may vary. But one factor is all-important in holding those customers... how well does your product do the job it's supposed to do! That depends on the basic ingredients you put into it. Superior performance translates into a superior selling record for your product.

Other fine Reheis anti-perspirant chemicals

CHLORHYDROL (aluminum chlorhydroxide complex)—for anti-perspirant creams, lotions, sprays and powders.

CHLORHYDROL S-5 (aluminum chlorhydroxide complex – modified) – for anti-perspirant gels.

Reheis can tailor any one of their anti-perspirant chemicals to meet the needs of your products. We suggest you write for free data and samples... and learn how Reheis quality can add to your profit picture.

REHEIS CHLORACEL Anti-perspirant gives *your* product *all* these advantages.

- **Effective anti-perspirant action**
- **Fine deodorant qualities**
- **Non-destructive to fabrics**
- **Non-irritating to skin**

FINE REHEIS CHEMICALS

REHEIS COMPANY, INC.

Manufacturers of Fine Chemicals

BERKELEY HEIGHTS · NEW JERSEY

4813

the new 'ROCHE' Aromatics offer the perfume designer and manufacturer :

- *previously unattainable stability in quality, supply, and price*
- *uniformity of raw materials never before achieved*
- *unexplored possibilities for creation of new interesting fragrances*
- *opportunity for long-range planning and purchasing*

now available

LINALOOL 'Roche'

A purer material than any previously offered to the industry. Free from the impurities present in the linalool from natural sources. Contains no other alcohols or terpenes. Olfactorily pure and floral in character. No residual 'after odor.' Unusually stable in soap.

LINALYL ACETATE 'Roche'

A very pure linalyl acetate containing no other esters and no terpenes. The Roche special process also precludes the formation of any other alcohols during the esterification process. Olfactorily pure and clean in odor. No residual 'after odor.' Unusually stable in soap.

GERANYL ACETONE 'Roche'

A completely new synthetic aromatic. Possesses a soft green odor with a rose note. A good base for synthetic lavender, geranium and rose bouquet. Stable in soap.

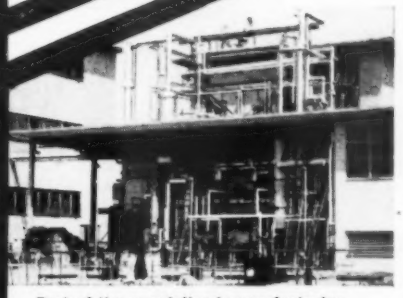
NEROLIDOL 'Roche'

Pure nerolidol. Light balsamic odor. Excellent fixative. Blends well with any perfume compound.

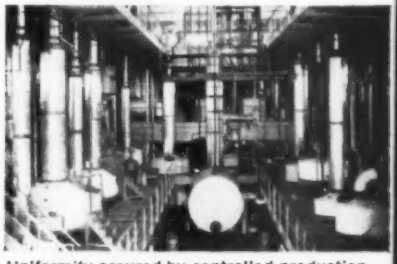
Detailed information on each product will be furnished on request.

Continuous olfactory control.

Constant control of uniformity.



Part of the specialized manufacturing facilities for maintaining uniformity of 'Roche' Aromatics.



Uniformity assured by controlled production.

'Roche' Aromatics are available through principal essential oil distributors

ROCHE

AROMATICS DIVISION

HOFFMANN-LA ROCHE INC • Roche Park • Nutley 10 • New Jersey • NUtley 2-5000

New York City: OXford 5-1400

a date to Remember

ADVANCE NOTICE OF . . .

Special

JUNE EMPHASIS ISSUE

Under direction of Maison G. deNavarre and featuring such highly qualified co-authors as DR. PAUL G. I. LAUFFER, G. KEMPSON-JONES, WALTER WYNNE, PHYLLIS J. CARTER, MORRIS ROOT, DR. LESTER I. CONRAD.

UP-DATING THE SUBJECT OF . . .

COSMETIC EMULSIONS

Not just a technical article. Not just a multiple page feature.
But a basic guide and reference. Includes equipment, materials, formulations. And Aerosol Emulsions.
Tables, charts, graphs, formulas and procedures.

For Further Information: Write John H. Muller

TENTATIVE CLOSING DATE

American Perfumer
AND AROMATICS
48 West 38th Street • New York 18, N. Y.

AEROSOL PACKAGING

can start sales rocketing – for you!

And here's how General Chemical can help you get your new aerosol ideas off the ground.

You've seen many aerosol products "take off" on a sales curve that shoots straight up. You've seen total aerosol sales increase over 30% *per year* since 1951 . . . to 320 million units in 1956. Perhaps you'd like to know more about the aerosol market and its potential. As a leading supplier of aerosol propellants—the "Genetrons"—General Chemical will be glad to provide extensive market information . . . and help you in other ways as well.

For example—if you are interested in marketing a new aerosol, General Chemical can tell you about promising new aerosol formulations developed in our laboratories . . . and can assist in the development of *your own* new aerosol formulation.

You may want to know about contract fillers and how they work. General Chemical can tell you about reliable contract fillers in all parts of the country who are equipped to handle production of test market *and* commercial quantities—relieving you of any need to invest in special equipment or personnel.

Interested? Write "Genetron" Dept., General Chemical Division, Allied Chemical & Dye Corporation, 40 Rector St., New York 6, N.Y.

genetron® aerosol propellants

GENERAL CHEMICAL DIVISION

40 Rector Street, New York 6, N.Y.

Allied Chemical

Creative Perfumer

Production

Perfume Evaluation Board

Aromatic Production

Sales

Cosmetic Research

Chemical Engineering

Aromatic Chemical Research

Quality Control

People...

THE IMPORTANT INGREDIENT

The success of your perfume is the result of the abilities of the many creative, technical and service *people*, who have a part in the creation and production of the perfume itself.

VAH Perfume Evaluation Board... Unmatched in their ability, these professionals screen every perfume sample on the basis of its intrinsic beauty as a fragrance, its adaptability to a specific market, its potential level of consumer acceptance, its relationship to both competitive and companion items... Not the opinion of an amateur panel, but the recommendation of this experienced *board of experts* goes with every perfume sample submitted by VAH.

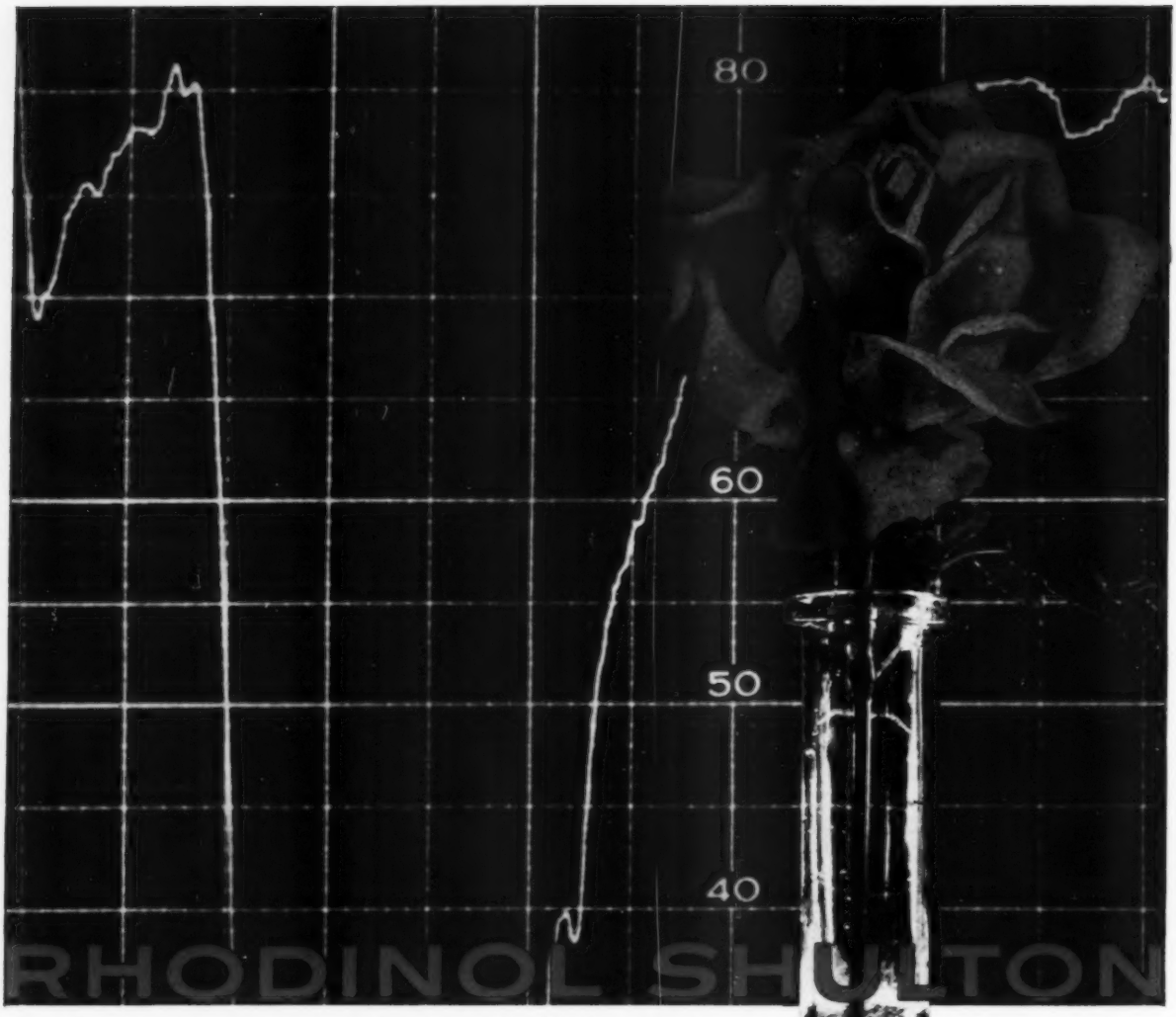
A perfume by VAH has all the ingredients for beauty and success.

van Ameringen-Haebler, Inc.

521 WEST 57th STREET · NEW YORK 19, NEW YORK

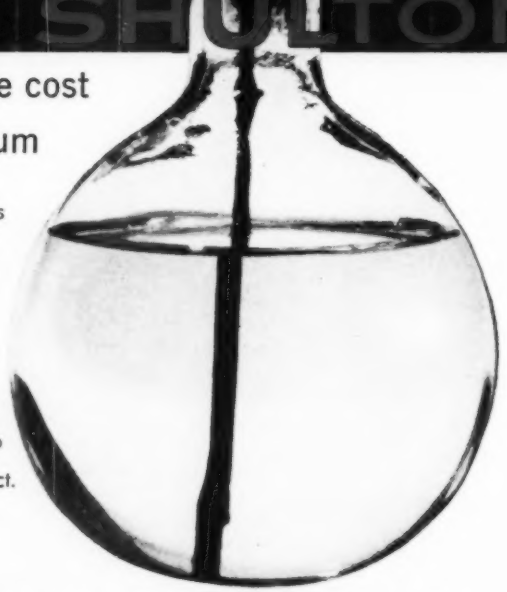
van Ameringen-Haebler, S.A.R.L.
Paris, France

van Ameringen-Haebler, Ltd.
Toronto, Canada



superb rose effects at half the cost of rhodinol ex-geranium

Rhodinol Shulton is superior to ordinary rhodinols in its freshness effect . . . its blending power . . . its compatibility with the finest perfume materials . . . and its stability in soap. • Shulton's advanced research combined with the perfumer's artistry makes possible this rhodinol of finest quality and constant character. And you can rely on the quality of Rhodinol Shulton because it is free of impurities, free of batch-to-batch variations. • Specify Rhodinol Shulton to procure these superb rose effects at only half the cost you might expect.



SHULTON FINE CHEMICALS

DIVISION OF SHULTON, INC., 630 FIFTH AVE., NEW YORK 20, N. Y., CIRCLE 5-6263

Also available for the perfumer: BENZYL ACETATE • GERANIOL • HELIOTROPINE • ISOEUGENOL • LINALYL ACETATE RHODINOL SHULTON • NITRO MUSKS • VANILLIN, U.S.P. • VANITROPE® ... **Market tested in successful products**

DESIDERATA

Maison G. deNavarre, M.S., F.A.I.C

Honors

It was a real surprise to get a letter from Mr. C. Steffensen, president of the Dansk Kosmetik-Kemisk Selskab (Danish Society of Cosmetic Chemists, telling me that I have been elected an honorary member of their Society. Mr. Steffensen's letter stated in part:

> "On behalf of Dansk Kosmetik-Kemisk Selskab I have the pleasure to award you Honorary Membership in our Society.
>
> "At the General Annual Meeting this award was given you by acclamation for your services to the cosmetic industry and particularly to our Society.
>
> "We hope that you will accept this as a small token of our gratitude for what you have done for us."

I am really humbled and sincerely honored. It is only fair to say that any contributions I have made to this industry have been aided by my employers, Beauty Counselors, Inc., the staff at the American Perfumer and Aromatics, my own staff at Cosmetic Laboratories, Inc., and countless good people who each in his way has helped me. This honor I share with them.

To my too few acquaintances in Denmark, particularly in the Society of Cosmetic Chemists there, my deepest thanks. I hope to acknowledge this distinction in person this September when our own S. C. C. members will visit Copenhagen for a seminar with the Danes.

Unusual Lanolin Derivatives

A new series of materials called "polymeric hydroxyesters derived by synthesis from the natural substances lanolin and castor oil," are all 100 per cent active emollients. They combine the properties of the two materials.

While castor oil is not miscible with mineral oil, these new compounds mix readily. The alcohol soluble silicones dissolve these materials, too, as do the higher concentrations of both ethyl and isopropyl alcohols. In lipsticks they leave no after-taste. They will have possibilities in aerosol hair sprays, hair dressings and other emulsified cosmetics. They are all light amber, viscous, oil-like ingredients now in full production. One of these materials is further acetylated, thus increasing hydrophobic and penetrating properties.

Wherever the combined properties of these two time honored emollients is desired, try this new series of materials.

Notes

Managed to keep away from the D.C.A.T. annual fun and friendship frolic—the late Mike Todd must have attended one of these before he planned that renowned party at Madison Square Garden. . . . Also had a chance to discuss sorbic acid with boys from Pfizer the night before. . . . Walter Taylor showed me one of his new Neocols —he's pretty busy with new quarters but promises more data on his new operations when things are all set. . . . That lab aerosol equipment Bill Scheck is making is pretty nice—Was up at The Wool Bureau to check some notes in their library—they are mighty cooperative. . . . Finally had a real session with Gabe Barnett—it was long overdue. . . . Tried to explain to Ted Coneybear why I should sign the check at The Chemists' Club but will have to get even on those 50 cent drinks on transoceanic plane flights. . . . Understand from Heyden's Aalto that a paper on some facet of preservation in presence of nonionics is to be given at the Los Angeles A. Ph. A. Scientific sessions during the week of April 20. . . . Toni division of Gillette certainly have a technical layout that makes one drool—Ray Reed's tan was still in evidence, too. . . . Hope I never have to compete again with the Chicago Perfumers' Stag "artistic dancers." . . . How does a talk on the interference of nonionic emulsifiers with preservatives compare with such choreography? Was surprised at how many stalwarts at Chicago S. C. C. meeting were on the Perfumers "committees" and hence "forced" to watch the dancers. . . . Glad to see George Kolar's new, larger plant—he's moved in and operating but a lot of additional equipment is still being installed—Good luck Kolars, father and son! . . . Steve Goode was mentally celebrating some new business that seemed to be around the corner—also my luck jinxed his chances to win a big basket of beverages at the

Continued on page 23

Beauty of fragrance...
N
M

...made-to-measure for your success!

eauty of fragrance is elusive...
indefinable...yet vital to the success of
a perfume or cosmetic!

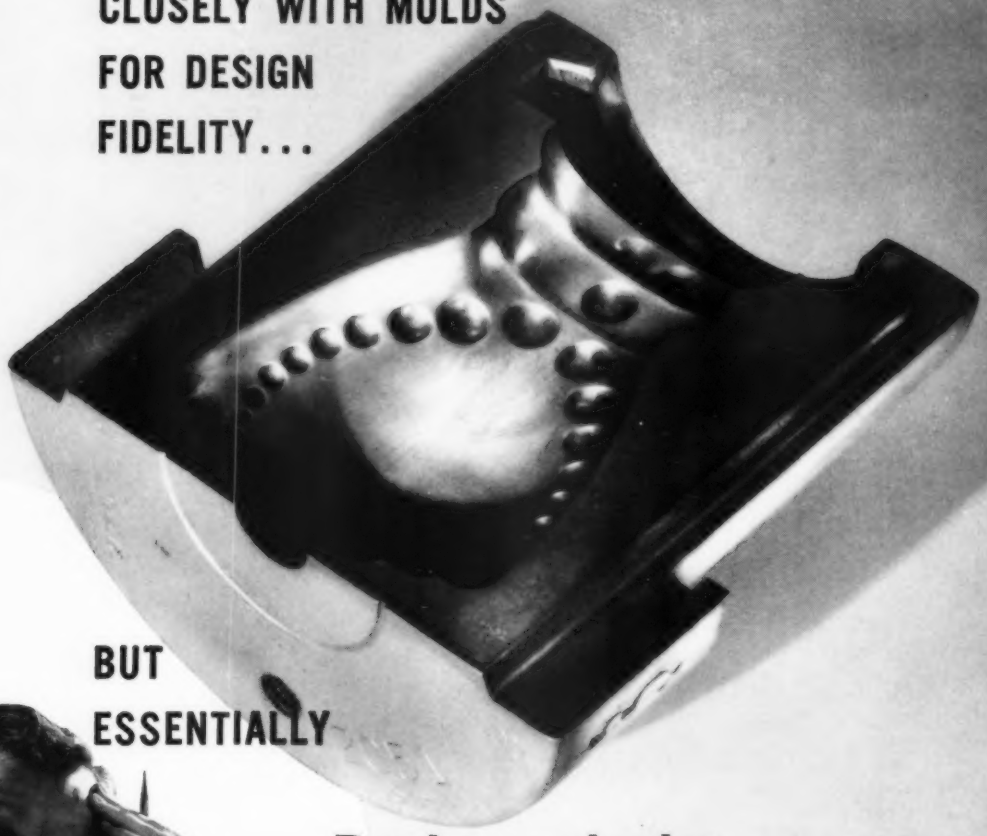
It takes imagination to conceive a beautiful,
original fragrance...skill and knowledge
to give it exactly the
right distinction and character.

Givaudan's imagination, skill and knowledge
are reflected in many successful creations.
They can provide you with
matchless fragrances—made-to-measure
for your success!

GIVAUDAN-DELAWANNA, INC.
321 West 44th Street • New York 36, N. Y.

GIVAUDAN

MARYLAND GLASS DESIGNERS WORK CLOSELY WITH MOLDS FOR DESIGN FIDELITY...



BUT ESSENTIALLY

Package design begins with an idea

Every craftsman knows his tools, but the creative package designer must do more—first he must bring an idea to life. An idea that says Yes to questions like: Is this container distinctive? Will it sell on the shelf? Does it pack properly, ship safely? Our design department specializes in designs that stop the eye . . . start the sale. For an affirmative solution to your design problems, contact Maryland Glass Corporation, 2147-53 Wicomico St., Baltimore 30, Md.

STOCK DESIGNS
A variety in blue or flint glass . . . in a complete range of sizes . . . is ready for immediate shipment.

PACK TO ATTRACT IN

MARYLAND GLASS

Blue or Flint · Jars and Bottles

I. A. C. . . . Lunched with Goldschmidt's Bob Armstrong and exchanged views on how to school one's children. . . . The German Society of Cosmetic Chemists has a powerful program planned for the seminar with the U. S. Society this September—am particularly anxious to hear Butenandt (on Royal Jelly) one of the expected speakers. . . . Note that Bob Marriott has his 1959 Spring Seminar program (their first) for the Society of Cosmetic Chemists of Great Britain.

Business is Good

Back last September, suppliers and competitors had a common question, which hadn't been heard by this department in almost twenty years, namely, "How's business?" When you answered that, it was good, they seemed disappointed, or at least incredulous.

The question kept getting asked more often—and business was still good. When January and February turned out to be the best yet (for my company I am speaking) the same people had to admit our orders confirmed the statements—but they said, things were bad elsewhere. I wonder just how bad they are.

Sure, maybe there is some down in business, particularly in certain lines. And as a consumer, I can think of a few lines where they have been riding high too long. So can you.

But why "cry wolf" before the wolf shows up?

You just can't keep running up, up and up without a slow down to catch your breath. After that, you can go up again. From what this department has seen, things are down about 10 per cent on an over-all picture. So what? Has the end come? If I were an economic major, there would be a lot of figures that could be mentioned. But I'm not.

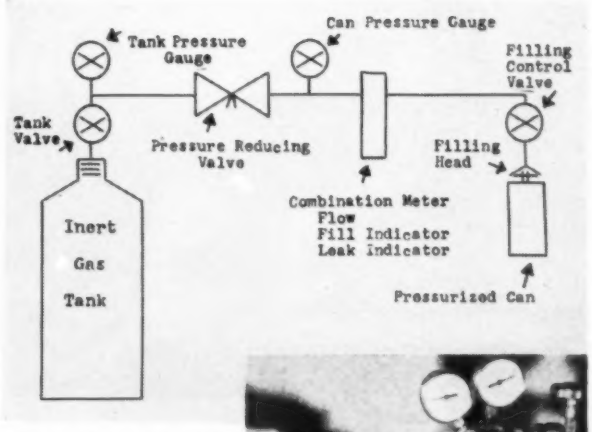
Salesmen are supposed to be taught that their own frame of mind puts them at a disadvantage or gives them the edge. For years they forgot about this commandment of selling. Let's practice it again, for the good of all. Anyone can cast a gloom on anything, but who likes a gloom peddler?

Advice to those who need it most is about as welcome as a lecture on thrift to a spendthrift.—*William Feather.*

Formula for failure: Try to please everybody.—*A. E. Carpenter.*

Extremely Timely!
Excitingly New!

INERT GAS FILLING SYSTEM



For Packaging and Dispensing of such products as:

- **LOTIONS**
- **CREAMS**
- **KETCHUP**
- **MUSTARD**
- **CAKETOPPING • TOOTHPASTE • ADHESIVES, etc.**

As AEROSOL TECHNOLOGISTS who are highly sensitive and responsive to the trends and aspirations of the aerosol industry, Builder's scores another "first" with the development and introduction of this inert gas filling system.

And again Builder's does it at a cost so low as to allow it to come within even the most modest laboratory or pilot production budget.

Engineered to provide an efficiently integrated, easy one-two-three step operation, with a production rate of approximately 10 cans per minute.

Send for "spec" sheet and prices. No obligation.

Whatever your Aerosol lab needs may be write to . . .

BUILDER'S SHEET METAL WORKS
INC.

108-110 Wooster St. • New York 12, N. Y.
Phone Canal 6-5390

ROURE

WORLD-WIDE RESOURCES
WORLD-WIDE SERVICES

Roure-Bertrand Fils, Grasse, and Justin Dupont, Argenteuil, France, as well as their facilities in North Africa, India, the Far East and South America, have for decades been prime processors of basic ingredients for the perfumers of the world.

Their creative genius is attested by the many proven international successes in the field of fragrance requirements . . . be it in the development of original perfumes, colognes, aerosols, cosmetics, soaps and other toiletries . . . or in the masking area where odors have to be covered rather than developed.

Roure-Dupont, Inc. technical staff is in a unique position to put its vast international facilities and know-how at your disposal.

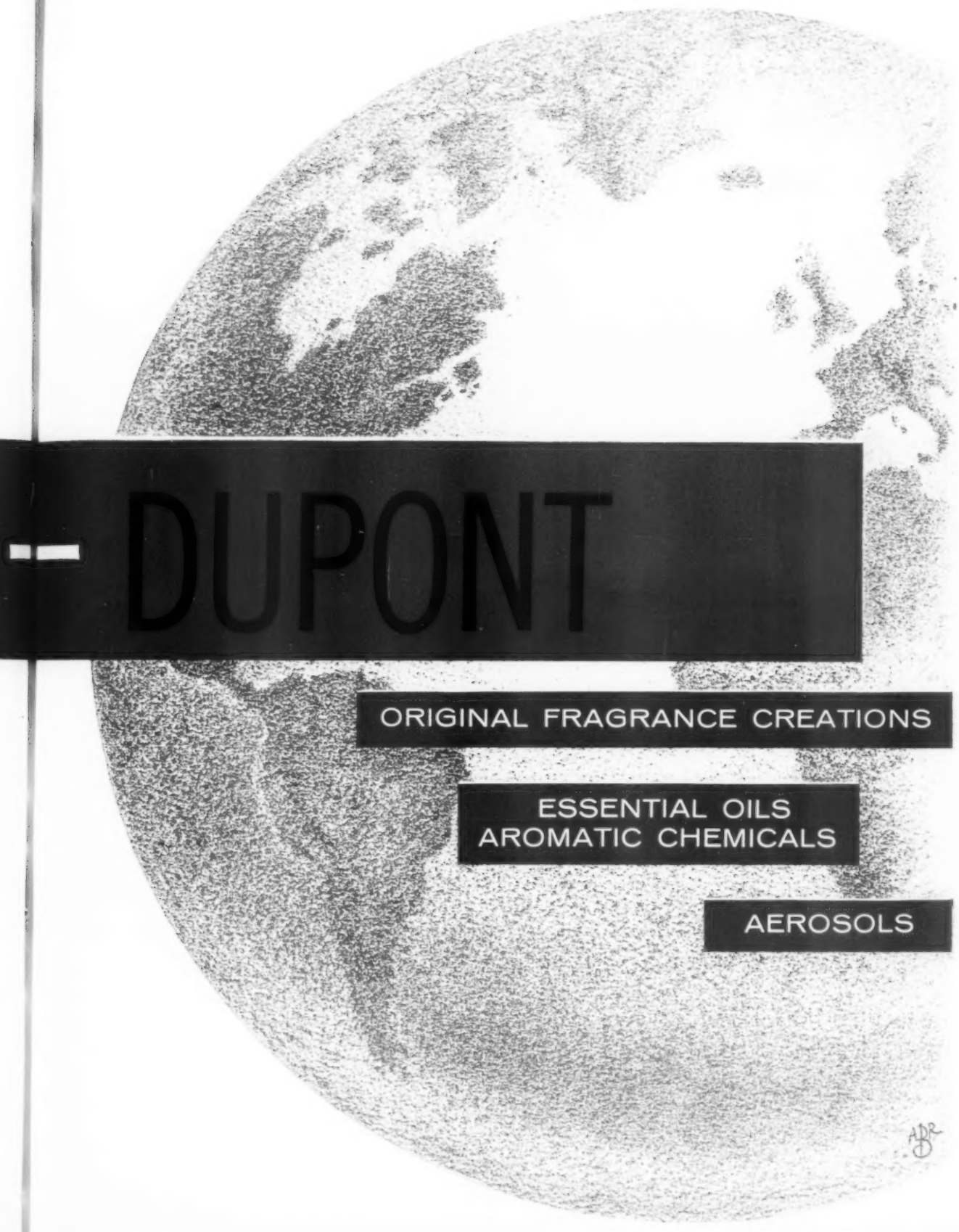
ROURE-DUPONT, INC.

Sole Agents for the United States and Canada for
ROURE-BERTRAND FILS et JUSTIN DUPONT, Paris, Grasse

CHICAGO
510 North Dearborn

366 Madison Avenue, New York
• MURRAY HILL 7-5830 •

HOLLYWOOD
5523 Sunset Blvd.


DUPONT
ORIGINAL FRAGRANCE CREATIONS
ESSENTIAL OILS
AROMATIC CHEMICALS
AEROSOLS

AEROSOL
PRODUCT
DEVELOPMENT

• Consulting

• Research

• Testing

The Safest Path
to Successful Products

THE
REED RESEARCH
CORP.

formerly Aerosol Process Co., Inc.

Winston H. Reed, Ph.D.
President and Technical Director

Mill Street, Shelton, Conn.
Phone Ansonia-Derby
REgent 5-4858

CONFIDENTIAL

UNBIASED

A Company
devoted exclusively
to development
and research on Aerosols

AERO SCRIPTS

Jack Pickthall*

Although there has been some attempt in certain European countries to organise the Aerosol Industry, I must say I was impressed with the action of the C.S.M.A. in America. The organisation of a committee to work with colleges and universities seems an excellent step. The committee, under the direction of Dr. F. A. Mina, should receive plenty of calls for assistance. The "kit" they plan to distribute and which will include brochures and leaflets from various firms interested in aerosols, will be very welcome to all concerned. I wonder how long it will be before we see something of this nature in England.

I was pleased to read in the December, 1957 edition of Soap and Chemical Specialties, that England has contributed something to the aerosol literature. Messrs. Dixon, Mumford, Gunn-Smith, Herzka and Simpson have written at some length on methods for determining discharge rates from aerosols. The method described is used by the firms of Cooper, McDougall & Robertson and The Metal Box Company. They suggest that the dispenser should be filled to the extent of 8.15 ± 1.5% by volume 70°F. As test examples, they gave two typical mixtures:

Odourless kerosene (boiling range 374-529°F.)	15.0% by weight
Dichlorodifluoromethane	42.5%
Trichloromonofluoromethane	42.5%

This particular filling refers to an insecticide pack. Valves for glass bottles may be tested with a filling as follows:

Industrial methylated spirits (74 o.p.)	50.0% by weight
Dichlorotetrafluoroethane	40.0%
Dichlorodifluoromethane	10.0%

They recommend the cold filling method wherever possible and suggest that the maximum amount of air should be removed from the dispensers.

In selecting the test samples, they say that the dispensers should not show sustained leaks when immersed for at least five minutes in a water bath at 130°F., nor when immersed in a water bath at 70± 2°F. for at least five minutes after spraying. During the spraying, the valves are to be held fully open for 10 ± 1/5 seconds in a manner similar to that in normal use. Discharge rates for thirty cans are given. By the same test method, twenty 12-oz dispensers were also investigated. Tables are given which show the discharge rates in grammes per second for all the containers investigated.

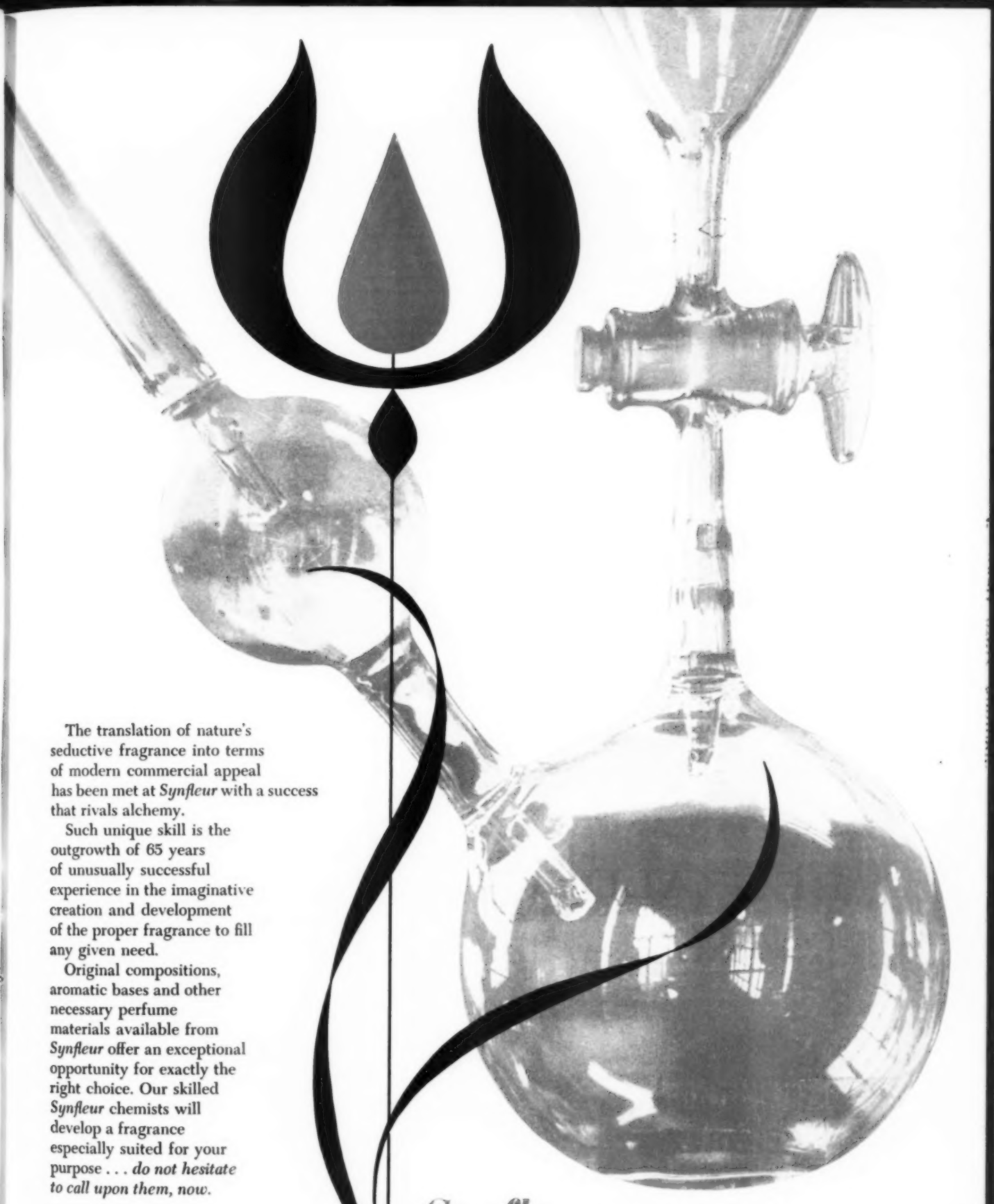
A further contribution in the Aerosol field is by I. F. Eyles who, under the heading of Plant and Equipment, talks of Aerosol Filling for the Newcomer. This contribution is featured in two sections, November 1957 and January 1958 Perfumery and Essential Oil Record. Eyles thinks that with the modern methods of pressure filling on the British market today, the filling of aerosols is simplicity itself and the very small capital outlay can quite possibly be recovered in the first run. The capital expenditure is small, running costs negligible, skilled labour totally unnecessary and finally, floor space required insignificant. Perhaps Mr. Eyles' article should be included under the many discussions which have been made for contract loader or own filling.

The first part of the article is a discussion of the various problems which concern the small scale aerosol packer, contemplating the purchase of filling equipment for the first time. In the January article, attempts are made to weigh up the advantages and disadvantages of the various types of equipment and to indicate capital and running costs. Mr. Eyles sums up the requirements of the ideal aerosol filling plant for a small, private filler as follows:

(a) Low capital cost.
(b) Economical running cost.
(c) Ease of operation.
(d) Versatility in output.
(e) Occupation of minimum floor space.
(f) Ease of maintenance.
(g) Ready availability of spares and service.

Mention is made of installing pressure filling equipment in laboratories to enable manufacturers to make their own initial investigations. According to Eyles, this can be achieved by installing two propellant pressure filling heads and preferably one concentrated head, a figure of £600, covers the total outlay. Taking a simple case of a formulation requiring difluorodichloromethane and monofluorotrichloromethane as the propellant, by having one head connected to the

*Chief Chemist, Polak & Schwarz, England, Ltd.



The translation of nature's seductive fragrance into terms of modern commercial appeal has been met at *Synfleur* with a success that rivals alchemy.

Such unique skill is the outgrowth of 65 years of unusually successful experience in the imaginative creation and development of the proper fragrance to fill any given need.

Original compositions, aromatic bases and other necessary perfume materials available from *Synfleur* offer an exceptional opportunity for exactly the right choice. Our skilled *Synfleur* chemists will develop a fragrance especially suited for your purpose . . . *do not hesitate to call upon them, now.*

Founded 1889 by Alois Von Isakovics

Synfleur SCIENTIFIC LABORATORIES, INC.

MONTICELLO, N. Y.

ATLANTA · DETROIT · SAN FRANCISCO · LOS ANGELES · MEMPHIS · NEW YORK · MEXICO, D. F.

Havana · Caracas · Maracaibo · Panama · Guatemala City · Managua · San Jose
San Salvador · Bogota

New York Sales Office 40 West 48th Street · PLaza 7-1960

former and the other to the latter, one is able to try an individual container charged with propellant of any predetermined percentage ratio and this ratio can be quite easily adjusted for each individual container. To achieve this by cold filling is quite laborious and impossible to correct and adjust the percentage ratio of initial sampling. Once a suitable propellant percentage ratio has been decided upon, it is then a simple matter to purchase a propellant in these proportions and connect it up to either one head or both heads, as the case may be. This would enable a run of, say, 50 to 500 containers to be filled for either experimental use or to explore sales reaction to the product.

There is considerable discussion in this article on the amount of money which would be required to be spent by a firm not employing their own filling machinery. The following statement taken from the article might not meet with everyone's approval.

"From the simple example above, it can be seen that whereas in ninety-nine cases out of every hundred everyone who chases speed of filling does not necessarily need it, as it is more advantageous to fill a certain product at regular intervals than have it done in large batches at a time and by the simplicity of pressure filling it is only a matter of minutes to change from one product to another, from one size of container to another, it is unnecessary to wait for concentrates and propellants to cool down as all filling is done at ambient temperatures. Another important aspect is the economy in pressure testing the container after it is filled. Normally, it is necessary to place the filled container into a hot water bath of approximately 130°F. and unless a source of waste steam is available the heating of the water bath must be done electrically, gas, etc., and all the heat which has been so laboriously removed from the propellant and concentrate must now be replaced and what is more we must pay £.s.d. to replace it, working this out in B.T.U.'s it means that for every 3,410 B.T.U.'s removed from the container something slightly more than this must be applied to the hot water test bath and it is quite possible that this alone can amount to anything from 14/16 kilowatts per hour."

Following precise costing figures, the article ends with the remark:

"On the face of things, it would appear that it is never a proposition to cold fill, this of course is not the case, as in the next article the author will attempt to give details of the special applications where cold filling is a proposition."

Whilst on the subject of British publications, I was more than delighted to receive an excellent book from the Imperial Smelting Corporation Limited. This is entitled "Isceon" (pronounced Ice-on) and deals with their range of fluoro-halo derivatives of aliphatic hydrocarbons, having applications as refrigerants, propellants, etc. Although the main emphasis of the book is on Dichlorodifluoromethane and Monofluorotrichloromethane, the following Isceon compounds are also in production or under development:

Trichloromonofluoromethane.
Tetrafluoromethane.
Dichloromonofluoromethane.
Monochlorodifluoromethane.
Trifluoromethane.
1,1 2-trichloro-1,2,2-trifluoroethane.
1,2-dichloro-1,1,2,2-tetrafluoroethane.

Their method of naming their products is of interest. A three figure number is added after the trade name. The first of these figures is equal to the number of carbon atoms in the chemical formula. The second to the number of chlorine atoms and the third to the number of fluorine atoms. It is only necessary to remember that the three figures refer respectively to carbon, chlorine and fluorine in alphabetical order. Thus, dichlorodifluoromethane, CCl_2F_2 has in each molecule, one carbon atom, two chlorine atoms, two fluorine atoms and is therefore named Isceon 122. Trichloromonofluoromethane CCl_3F has in each molecule one carbon atom, three chlorine atoms and one fluorine atom and is therefore named Isceon 131.

Although this means yet another confusion in the nomenclature, it does seem a simple, easy and logical way of naming these compounds. The book deals with production process, quality, specifications, physical properties, chemical properties, analytical methods, containers, safety precautions, uses, monographs and thermodynamic properties. An exceedingly well produced and useful little book.

From Heyden Newport

N.F. (F.F.C.)
As an odorant in soaps, hand lotions and other cosmetics and as an additive in flavoring compounds.
TECHNICAL
Useful for the synthesis of pharmaceuticals and organic chemicals.

PREFERRED SOURCE FOR HIGHEST PURITY AND UNIFORMITY

BENZALDEHYDE

When you process with Heyden Newport Benzaldehyde, you are assured of unsurpassed purity and uniformity in the characteristics you seek – chemical reactivity, volatility, odor and taste.

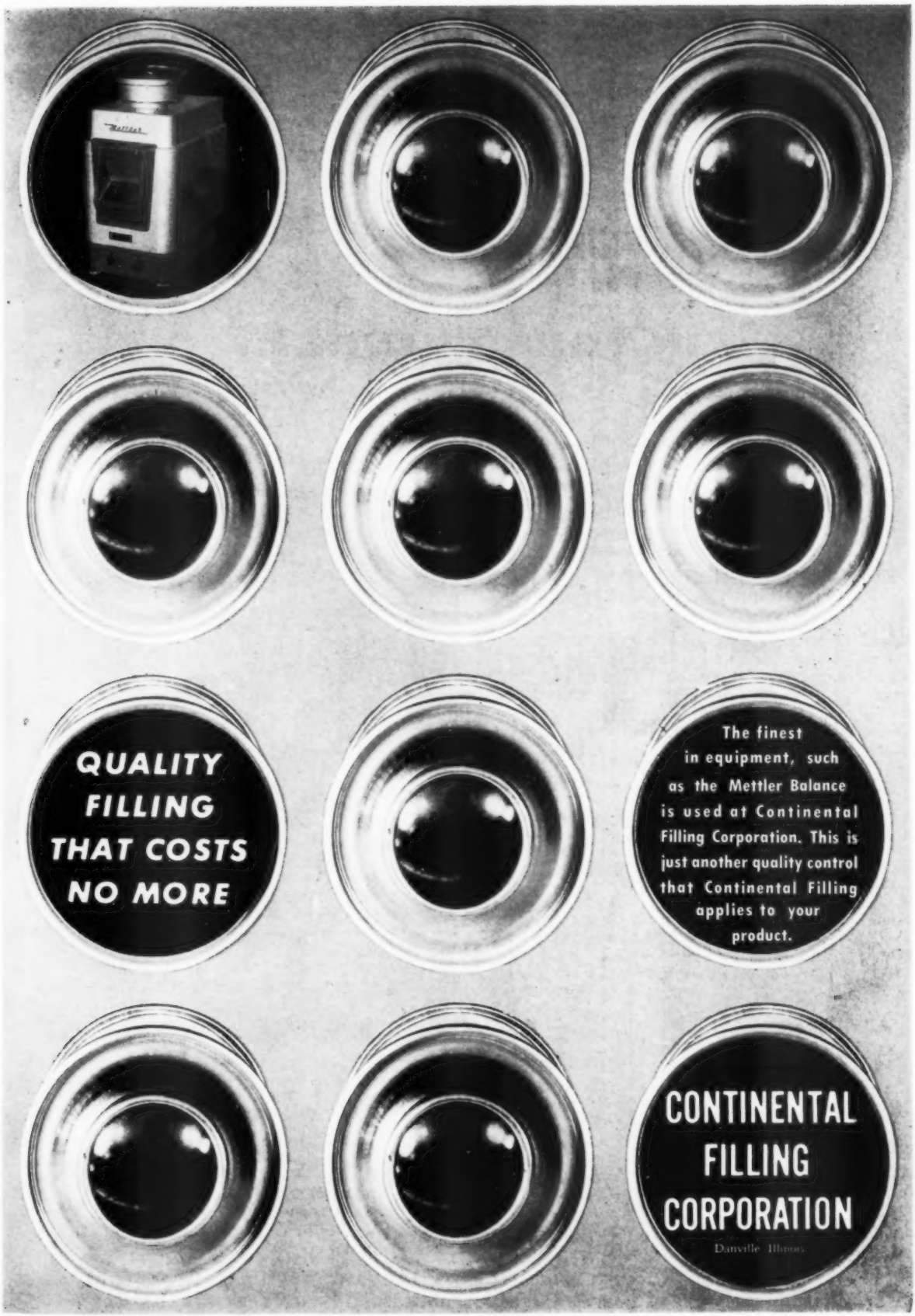
That's why leading cosmetic, aromatic and pharmaceutical producers rely on Heyden Newport as their basic source for this valuable intermediate.

For new product development, as well as for those now in commercial use, it will pay you to investigate the processing benefits of Benzaldehyde and its chlorinated derivatives, such as o-Chlorobenzaldehyde and p-Chlorobenzaldehyde.

Heyden Newport Benzaldehyde N.F. (F.F.C.) or Technical is shipped in 450 lb. stainless steel drums, 100 lb. glass carboys, and 40 lb. lined drums. Samples and technical data are available upon request.

Heyden Newport Chemical Corporation, 342 Madison Ave., New York 17, New York.

HEYDEN NEWPORT *Where tradition meets tomorrow in chemical progress*


QUALITY FILLING THAT COSTS NO MORE
The finest in equipment, such as the Mettler Balance is used at Continental Filling Corporation. This is just another quality control that Continental Filling applies to your product.
CONTINENTAL FILLING CORPORATION
Danville Illinois

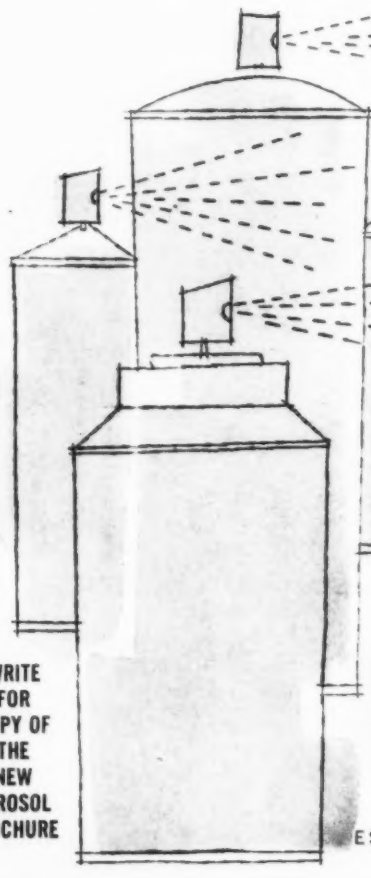
FOR THAT

AEROSOL

IN YOUR FUTURE...

Thoroughly tested perfume compounds, developed in the D&O Perfume Department and checked through all stages to finished product in the Aerosol Laboratory. Shelf tested for stability, corrosion and clogging difficulties. Solubility and discoloration problems eliminated. Complete data, including formulations, available. Let the D&O Perfume and Aerosol technicians put that sales-clinching (problem-free) fragrance into the "Aerosol in Your Future."

COLOGNES
CREAMS
DEODORANTS
HAND LOTIONS
SHAMPOOS
SHAVE CREAMS
HAIR LACQUERS
SPACE DEODORANTS
INSECTICIDES
PET PRODUCTS



WRITE FOR COPY OF THE NEW AEROSOL BROCHURE

"Essentially for you"

D&O ESTABLISHED 1798

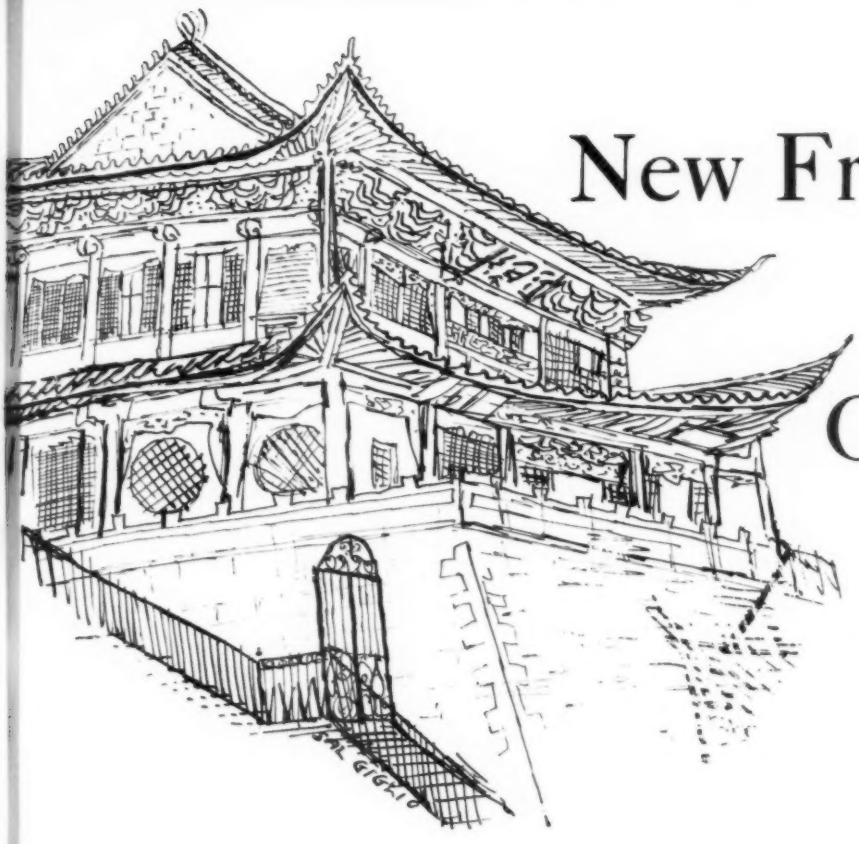
Our 159th Year of Service

DODGE & OLCOTT, INC.

180 VARICK STREET • NEW YORK 14, N.Y.

Sales offices in Principal Cities

ESSENTIAL OILS • AROMATIC CHEMICALS • PERFUME BASES
FLAVOR BASES • DRY SOLUBLE SEASONINGS



New Fragrances of an Old Nation

China's recent progress in the perfumery industry

CHIANG HSI-CHANG*

In the last five years, China has made great strides in the production of perfumery and flavouring materials. So rapid has the progress been that a Chinese planter in Java found it difficult to believe that more citronella is now cultivated in his country of origin than in his country of residence. A representative of a well known European firm who came to Peking with a case of essential oil samples found to his surprise that there were more to buy than to sell and went back with a greater number of samples than he brought over.

Shanghai, one of the production centers, boasts of a hundred items, both natural and synthetic, excluding compounds. The total quantity for 1957 is expected to be some 3,700 metric tons, representing an increase of 667% if the figure of 1952 is taken as 100. The development of other centers is more or less proportionate, but each with its own individual characteristics; Shenyang (Mukden), Tientsin, and Hankow utilizing the by-products of heavy industry specialise in aromatic chemicals, while Kirin and Tsitsihar items are based on forest and fermentation produce. Centers producing essential oils and floral concretes are well scattered, among which are Canton, Hainan Island, and Foochow in the extreme south, Chengtu and Chungking in the far west, Soochow and Hangchow in the east coast region.

The Humble Beginning

It was not altogether without difficulty, or even a degree of confusion, at the "humble beginning." Lacking the industrial "know-how," the experience in organization and especially coordination among the different organs concerned, the young industry groped its way forward, erring and halting many a time. The quality of a number of products was unsatisfactory and therefore, rejected by users at home and abroad. Those which fared better suffered from irregularity of supply or inconsistency of norms. Both domestic and foreign orders were filled after much delay and often at variance with the original demand. But fortunately this is no longer the situation. Most of the products are now as good as any, and a few have even surpassed international standards. If orders are not filled now, it is for quite another reason—improved products have brought about too great a demand to meet.

Hainan Citronella and Patchouli

Before 1953, every drum of citronella oil used in China was imported. This year, 1957, nearly a thousand metric tons of it is expected from Hainan Island alone. On the rich virgin soil of the island's southeastern coast, the grass grows true to type but with an extraordinary yield of leaves (up to 70 tons per hectare during the second year) and an unusually high oil content (up to 1.3% for fresh material). This baffled most Chinese experts whose knowledge is based on foreign data. Classics like those by Gildemeister, de Jong, and Guenther, as well as recent reports from both hemispheres were quoted to argue against the possibility of such claims. Repeated checkings were made on the freshness of the leaves at the moment of distillation and the chemical composition of the oil, but so far no flaw has been found. However, on the drier and poorer soil of the northern coast and the peninsula opposite the island, the average yield is only 22.5 tons per hectare with an oil content of about 1%.

Up till now most of the distilleries are still using the batch process; an average plant consists of 6 to 12 stills supplied by 2 or 3 boilers, handling a total of about 20-30 tons of material per day. Bigger ones, such as plant No. 2 of the Seagull State Farm, have a daily capacity of 75 tons. A new plant using the continuous distillation process is being built this year. It houses a set of

*Engineer, Ministry of Food Industries, China

3 towers each handling 20 tons of leaves daily with an extra fractionating tower for the cohobation of distillation water so that it can be returned to the boiler. Chinese engineers are designing a newer version which aims to eliminate the extra tower by utilizing the plant material itself as tower packing.

Besides citronella, other members of the family Gramineae such as lemongrass and vetvert have been planted in the same region, but as the former did not grow too readily, the center of cultivation is shifting to an adjoining province. So is the experience with the Geranium; the summer midday sun seems to be too scorching. On the other hand, patchouli acclimated itself wonderfully well; about 2,500 tons of dried leaves have been harvested this year. But, rightly or wrongly, most of it is used as such in herbalist medicine; only a small part is processed into oil which is of excellent quality.

Canton Rose and Jasmine

Before 1953 very little flower concrete or absolute was used in China. Alcoholic perfumes at that time were not in vogue while for cosmetics and soap the price of the imported stuff was then considered prohibitive. Yet the jasmine flowers used for scenting tea and the roses for flavouring wine and confectionary totalled to several thousand tons a year. When the weather or other conditions threw the related trades out of balance, the beauties with all their fragrance were left to rot in the fields.

In 1954 and 1955 attempts were made to extract the exhausted flowers (used for scenting purposes in the tea industry) with benzene of doubtful purity; the products naturally were far from good. This year, however, a modern plant was built on the outskirts of Canton, equipped with China-designed rotary extractors. They are based on the Garnier-Bondon principle, with many improvements, and therefore most gratifying results. The solvent loss per 100 kilos of flower processed is less than four kilos while the yield of Jasminum sambac amounts to 0.225% at the beginning of the season and rapidly increasing as the season advances. A panel of top level perfumers subjected the new product to an organoleptic test and agreed that while the odor is certainly different from imported samples made with Jasminum grandiflorum, it leaves nothing more to be desired as to the true-to-nature freshness, the absence of solvent odor and dark pigments, and the intensity of fragrance.

The solvent now used is petroleum ether with a boiling range from 68° to 70°C, supplied by one of China's new mineral oil refineries. Under the Maumene test, the sulphuric heat is well below 2°C. Not content with the present state of affairs, scientists of research institutes are experimenting with lower boiling solvents such as butane and pentane. They are also experimenting with all kinds of nonionic surfactants according to the suggestions of Prof. Paolo Rovesti. A modified form of Enfleurage with a current of moist air and active carbon, used in conjunction with solvent extraction, is now in the pilot plant stage.

China abounds in odoriferous flowers. The factory in Canton is scheduled to process not only the jasmine and the rose, but also the flowers of Michelia alba, M. champaca, M. fuscata, several species of the citrus genus, and Murraya paniculata of the same Rutaceae family. Many others can be added later of which two are particularly worthy of note; the first is Artabotrys odoratissimus, related to Ylang-ylang, but the odor is much more refined yet much stronger, the second is Plumieria rubra, which is the cheapest of all local flowers yet one of the sweetest.

Foochow Champac and Orange Flower

The next extraction plant is likely to be built in 1958 at Foochow where the jasmine is slightly more expensive but champac can be had for the asking. The specialties of this region are Chloranthus spicatus and Aglaia odorata which for centuries have been used to perfume tea. The orange blossom by the name of Dai-Dai Hwa (Citrus aurantium, var. amara, forma Dai-Dai) smells exactly the same as that of the bigaradier of southern France. Under the shade of these trees and in other citrus or olive groves, Viola odorata is to be planted. On the hillside out of the city, honey-suckles grow wild, and in a near-by district narcissus and jonquils have for generations been connected with the livelihood of the villagers who supply the bulbs to flower-lovers all over the country.

In the meantime, a few stills have been already installed there as the people are too anxious to exploit the natural resources for so long neglected. They intend to make, when the season arrives, rose and neroli oil by water distillation and champac-leaf oil with direct steam.

Chungking Tuberose and Gardenia

Tuberose grows exceptionally well in the vicinity of Chungking. It is in bloom, almost six months out of the year, and the average yield is 7.5 metric tons per hectare. Huge gardenias which would fetch at least a dollar each in New York City are sold in Chungking by the cattie at an incredibly low price. Flowers of Chimonanthus fragrans (syn. Meratia praecox) are just as cheap. Cymbidium virescens, C. ensifolium and C. pumilum, which are reputed to be the most delicate and exigent in the domain of horticulture, are not so regarded in this mountainous region which is their natural habitat. The production cost is therefore well within the scope of industrial exploitation. These orchids have been highly esteemed since the dawn of Chinese history, long before the time of Confucious. Chu Yuan, our great poet, mentioned them in almost every verse and some of our best artists devoted their entire lifetime painting their graceful forms with but a few strokes of the brush.

Probably the most important perfumery and flavouring material in ancient China was the flower of Osmanthus fragrans. Down to this day, it is still indispensable in most Chinese desserts and confectionery, just as vanilla is in Europe and America. Its delicious odor and taste is difficult to describe but once extracted and placed on the market there is no doubt that it will find universal favour. Supply of Osmanthus fragrans will also come from Chungking or the adjacent cities like Hsintu or Chengtu.

Citrus Oils Hitherto Unknown

China is the native land of the sweet orange as indicated by the botanical name—Citrus sinensis. Yet before 1952 all citrus oils and citrus juices were imported. In the cities orange peels were thrown away as garbage. In the interior such as Szechuan, where the peel is still dried in the sun for the herbalist store, thousands of tons of the pulp were dumped into the Yangtze River. Distilled oils began to be made in 1953 and reached 130 tons in 1955. As it was collected from numerous small producers, the quality was far from uniform and generally very poor. In 1956 pellatrici were installed and very good results were obtained with Chiokan from Swatow, and Kwangkan from Chungking. Besides the characteristic aroma inherent in the respective varieties, the quality of the oil in general aspects is practically the same as that of Messina.

In order to suit the great variety of citrus fruits cultivated in China, especially the soft-skinned and

loose-skinned mandarins, Chinese engineers are cooperating with scientific research workers to design a new type of rasping machine as well as a special screw-press with a large surface area. Apparatus for the simultaneous extraction of oil and juice such as the FMC In-line extractor, is also under study.

With such modern equipment, China will produce many citrus oils hitherto unknown. There is the mandarin of Hsinhui of which the peel, pulp, and even the leaves seem to have been perfumed with a good Neroli. There is the fingered citron (Citrus medica, var. sarcodactylis) which reminds one of bergamot but is very much sweeter. There are all kinds of giant pomelos and diminutive kumquats (Fortunella), among which many novel tones or shades of the refreshing citrus flavour have been noted. Eureka lemon grows well in Szechuan and recently a hybrid between lemon and the fingered citron has been discovered there. It may not be edible, but it is invaluable for perfumery.

New Varieties of Mentha Arvensis

Chinese menthol and peppermint oils have their definite place in the world market and need no comment. In the last few years, however, the internal demand has been so heavy, that there has been comparatively little for export. The area of cultivation is constantly increasing but is limited by the fact that around Shanghai, a center of various light industries, so many other industrial crops are equally required. While new producing regions ought to be opened up, the actual trend is to encourage intensive agriculture in order to raise the yield per unit area.

The experimental station at Lunghua is selecting the best strains out of the better varieties of Mentha arvensis in respect to oil and menthol content. In the course of routine work, it has been observed that this species, like a number of others in the plant kingdom, has several physiological forms which can hardly be distinguished from one another morphologically. Some apparently contain linalool and smell like the Russian spearmint or the bergamot mint (Mentha citrata). One of them has yielded an oil that is 70-80% carvone and entirely free from menthone or menthol. The odor is only slightly different from, but in no way inferior to, the regular spearmint oil, while the yield is more than twice that of the latter. It has been cultivated to some extent since 1954 and production is controlled to about 100 tons a year.

Mentha piperita and M. spicata which are preferred by some people will also be developed, along with other members of the family Labiatae. Several Ocimum species or varieties are being bred and a few wild Mosla spp. are found in profusion, the oils of which consist mainly of thymol and carvacrol. Lavender (Lavandulal vera) is on trial planting in several parts of the country ranging from the coastal highlands of Fukien to the mountains between Szechuan and Tibet. Drier places are selected for sage clary.

Physiological Forms of the Camphor Tree

Speaking of physiological forms, none is more interesting than those of the camphor tree. Under the botanical name of Cinnamomum camphora, are many trees containing no camphor at all or very little of it. The linalool content on the other hand, can be as high as 90% in the crude oil. The oil of other trees is a mixture of cineole, linalool, terpineol and camphor. A travelling tradesman who once boasted of being able to identify the various trees at sight was at a total loss when shown dried specimens and had to admit that he depended on his sense of smell.

Although the reserve of camphor wood on the Chinese mainland is 5 times that of Taiwan (Formosa) and 6 or 7 times that of Japan, forestry authorities are now restricting the felling of old trees. Only a carefully planned quantity of each sort of oil is scheduled to be produced while patch farming of these trees and distillation of the leaves thus harvested are under serious study.

Yet all these camphor trees constitute only one of the 1,300 species of the family Lauraceae in which China is undisputedly most rich. There exist also the Cinnamomum parthenoxylum (or is it a sort of C. micranthum?) whose oil contains about 90% of safrole, and the Cinnamomum glanduliferum whose wood contains safrole while the leaves contain camphor. The leaves of an unidentified species recently found at the entrance of the Tu-fu Memorial (in honour of the great poet) in Chengtu smells strongly of citral.

Those trees that contain either Cinnamaldehyde or Eugenol have always been classified into another series with the general vernacular name of Kuei-shu instead of Chang-shu although in taxonomy based on morphology, they too belong to the Cinnamomum genus. C. Cassia has long been well known. A recent discovery of high Eugenol content is probably C. culilawan or C. sintok. More common on the east coast are C. Pedunculatum and C. loureirii both containing citral, linalool, genaniol, eugenol and cineole. The crude oil is thus almost a compounded perfume per se.

"Chinese Verbena"—Litsea Citrata

It is said in the trade that at the beginning of this century, an essential oil appeared on the European market under the name of "Java verbena" which is in fact extracted from the seeds of Litsea citrata. Despite the interest aroused and the orders placed, it soon completely disappeared, probably because the supply from Java and the adjacent isles was very meagre. It is now known that thousands of tons of these seeds are collected in China—in a wide belt stretching from the Tropic of Cancer to the 30°N. latitude, comprising some 10 provinces. The oil contains citral up to 90%, the rest being in all likelihood geraniol, geranyl esters and d-limonene. In composition as well as synthetic preparations, it has definite advantages over lemongrass oil and production cost is only a fraction that of true verbena.

The true verbena, Lippia citriodora, does exist in China under the name of Tao-yeh-tsao because the leaves somewhat resembles that of the peach tree. Should demand ever warrant it, the oil can be produced in large quantities.

The North VS. The South

Admitting that most of the aromatic plants are found or cultivated in South China is in no way asserting that such natural resources in the north is very much less. For instance, Magnolia coco, M. liliflora, and M. officinalis are all in the south, but a variety of M. parviflora whose fragrance will humiliate all the other magnolias, has just been found in the far north. The so called "China Star" aniseed oil is renowned to be a product of Kwangsi, but North China is conceded to be better suited to grow fennel and the whole umbelliferae family. There is so much wild caraway in Shansi that most of the sheep feed on it. Eucalypts including the E. globulus and E. citriodora thrive only in the extreme south (with the exception of Szechuan), but in the north are poplars, birches, apricots, almonds, and the Robinia pseudoacasia. Conifer oils with high cedrol content are now produced in considerable quantities in Chekiang, but

the amount of available raw material cannot be compared with that of North and Northeast China.

"Rarities" that are Plentiful

After investigation, a number of commodities once thought to be rare are really quite plentiful. Agarwood, for instance, is a pathological formation of Aquilaria agallocha. It only appears in small irregular patches in the deep tissues of the tree, seldom exceeding a few ounces each. A few years ago not even one in ten drug stores in China was stocked with it and the price was always whimsical. In 1955 government surveyors disclosed that Hainan is not the only producing region of this precious tree; extensive forests of it are also found on the mainland. Scientists advised soon afterwards that the agar formation can be artificially enhanced by systematic wounding or by injection of the responsible fungus. Though the result is yet to be seen, the present production has already exceeded the requirements of medicine and some are being offered to the perfumery industry.

Ambrette seed was little known in China and thought to be nonexistent within the national boundaries. In 1955 an investigation party to Hainan Island noted that the local population used a lot of it to make a flavoured drink called "native coffee."

Lysimachia foennum-graecum with the most tenacious and powerful coumarin-like aroma has been exported to France and Germany in small quantities in the form of dried leaves. It is now known that this plant covers wide areas in the mountainous districts of Kwangsi and Yunnan.

Oil of spikenard of Biblical fame is little used in modern perfumery and believed to survive only at isolated spots on the Himalaya. We know of late that it is a common weed in the northeastern part of Szechuan through which a new road has been built. Stills of a considerable size have been installed since 1955 and the oil is distilled on the spot. When skilfully used, its odor effect is truly amazing while its fixative power further justifies its popularity in the ancient world.

Taming of the "Shrew"

China is also richly endowed with perfumery materials of animal origin. She is by far the biggest producer of natural musk. Its scarcity in the world market during the last few years is due to increased consumption by Chinese medicine which is beginning to revive through scientific research. The annual production of musk is in reality still maintained at the 40,000-ounce level. This amount, however, is inadequate to meet the present demands, so measures are being taken to experiment with artificial breeding. The musk deer although shrewd, has regular habits and is comparatively easy to trap. However, an equal number of females are also trapped and usually sold for their hide and meat. Instead of this malpractice, plans are being made to domesticate these females and with but a few males saved for breeding, there will be more musk to satisfy the needs of both the pharmaceutical and perfumery industries.

The Chinese civet, viverra zibetha, looks slightly different from that of Ethiopia, but the odoriferus secretion is very much the same. Ambergris occasionally washed up at the southern seacoast cannot become a regular supply, but with a fast growing whaling industry, more finds can be reasonably expected.

Synthetics from the Natural

In consequence of the feasibilities and advantages mentioned above, China's aromatic chemicals are chiefly isolated or synthesized from essential oils and other vegetable oils. Nearly a score are made from oil of citronella, about a dozen each are made from cassia oil, castor oil, coconut oil, fusel oil, and turpentine. Other series of products are based on eugenol from cinnamon leaf, citral from lemongrass and litseacitrata, safrole and linalool from the so-called camphor tree, etc. Coal-tar derivatives, more than 30 in number, are also in regular production.

In the course of but a few years, many technical improvements have been incorporated in the processes originally adopted, thus evolving into China's own processes. Hydroxycitronellal used to be made by the usual method necessitating hydration at low temperature; it is now done without refrigeration and the yield (about 90%) far exceeds any foreign data. The aldehyde content after fractionation is up to 98% and the odor is delightfully floral.

Terpineol, on the other hand, is found to be better made with refrigeration. By the careful control of temperature, and a few other measures, hydration can be completed in a much shorter time and the production rate of the same equipment can be easily quadrupled. Hundreds of tons of B.P. and E.O.A. quality terpineol have been exported since last year.

For the manufacture of linalyl acetate, the method of Isagulyantz and Smolyaninova has been perfected. By substituting coriander oil with Ho oil containing 92% linalool, the purity of the resulting ester is more than 95% after a single fractionation.

Heliotrpin made with our own safrole has a purity above 99.5% and a congealing point above 35.3°C. Cinnamyl alcohol made with Kwangsi cassia oil has a congealing point of 33°C. and a very sweet hyacinth-like odor.

From Imitation to Creation

Good "noses" always existed in China, but the art of perfume compounding was little understood. At one time, most perfumers depended on classical formulas and books such as those by Poucher, Durvelle, Cola, Winter, or Gattefosse were their jealously guarded properties. Matching imported goods was their main work with the result that most of the toilet soaps on the market either belonged to the type of "Lux" or that of "Palmolive." But during the last few years, new materials at hand have opened the mind's eye, and the old hands are now equipped with new knowledge and new inspiration. They have began to create.

From their new creations, one can perceive the traditional preferences of the people, the irresistible inclination of the times, and the harmonious mixing of the Orient and the Occident.

An Invitation to Cooperation

Despite the rapid progress of China's perfumery industry, it will be quite some time before demand can be fully met. China is a nation with 600-million people. With living standards going up at a steady rate, the demand for consumer goods including perfumes and toilet articles will be greater than ever. This is best seen from the statistics of the maritime customs. While the export of perfumery materials has been steadily increasing since 1953, the import figures show the same trend with no less clarity.

It is not without reason that Chinese perfumers regard their country's development in this field as one of the newest contributions to an ancient art and industry. China offers what she has and what she knows to all nations and at the same time solicits reciprocation. The ideal "perfume compound," therefore, would be a bouquet of many flowers including the Bulgarian rose, French lavender, English violet and Chinese jasmine.

Photo courtesy Helena Rubinstein

Pressurized Packages for Cosmetics

MORRIS J. ROOT*

The large impact that aerosol products in the form of hair sprays, colognes, sachets and similar items has had on the cosmetic industry may soon be overshadowed by what we will call the "pressurized package." Cosmetic aerosols in which the propellent is a liquid (Freon®, Genetron® or Isotron®) could only be dispensed as either a spray or a foam. Market and consumer tests with aerosol toothpastes revealed that a foam was not a desirable form in which to have the product expelled. Shampoos and hand lotions, which even reached the marketing stage as aerosol foam products, did not meet with good acceptance, presumably because the product was delivered in aerated form. Recently, the use of nitrogen for pressurizing a container makes it possible to have a dispensing container in which the product comes out in non-aerated form. Since this is exactly what the tooth paste manufacturers were seeking, we find that they are readying their products or already marketing in this manner. The use of nitrogen as a propellent for toothpaste not only solved the aeration problem but also simplified the problem of Food and Drug Administration approval.

The idea of using compressed gases or air to push liquids out of containers goes back for quite a few years. As early as 1862 U. S. Patent 34,894 was issued to John N. Lynde for a valve for dispensing a pressurized liquid from a bottle.

U. S. Patent 991,725, issued on May 9, 1911 to Guy L. Kennedy, covered a tap for dispensing a liquid under pressure. His claim states, "A tap for dispensing liquids under pressure comprising a valve casing, a valve therein, a spring normally closing said valve, a tube extending laterally from said valve casing . . ." certainly he had all the functioning requirements of a present day nitrogen package.

M. C. Reinecke in U. S. Patent #2,120,297, shows dispensing viscous products by pressure, but in aerated

Technician in the D&O Aerosol Testing Laboratory fills a food aerosol container with nitrous oxide.

forms. Nitrous oxide and carbon dioxide are the gases suggested, with atmospheric air mentioned as "commonly unusable."

U. S. Patent No. 2,294,172, issued to C. Getz, deals with aerated viscous products using nitrous oxide.

Pyenson, U. S. Patent No. 2,723,200 is a method for packaging viscous food products. The chief point of difference between Pyenson and the earlier inventors is that here the object is merely to dispense a viscous food product, not aerate it. Consequently, a non-soluble gas, nitrogen is used.

It would appear from the patents that the idea of a pressurized package is not new at least insofar as this literature is concerned. The development of containers, valves, and production methods for aerosols has now made pressure packages practical. Once suitable valves and containers are available, it becomes a simple procedure to fill the containers with a product, seal it with a valve and charge it with a gas, and have a self-dispensing package. For viscous products this package

*G. Barr and Co.

is all the more suitable. If the charging gas is soluble in the product, it comes out frothy since the gas is released at reduced pressure. If the gas is not soluble in the product, it is merely pushed out and the product appears just as it would if coming out of a conventional package. Not only is it possible to dispense products as a foam, aerated or not, but also if the viscosity is low, as a spray by the use of compressed gases. There is, however, one serious drawback with the use of a pressurized gas for the propellent in a spray package. Since the pressure in the can drops as the gas expands in the space which was taken by the expelled product, the spray characteristics will change. When the product is first used, the pressure will be high and the spray fine, but as the container is emptied, the pressure will drop and the spray will become coarser.

Non-aerated liquid dispensing with compressed gases will undoubtedly offer the greatest number of possibilities for new toilet goods products. In the past, products too viscous for a bottle would be thickened and put in a collapsible tube, or products not quite thick enough for a collapsible tube would be thinned out and put in a bottle. Now with the pressurized package it becomes possible to package products in this intermediate viscosity range.

The pressure package is especially desirable for those thixotropic products which, when sitting on the shelf for some time in a bottle, are very difficult to empty. Such products, because of their thixotropic nature, are thinned when forced through the valve of a pressurized package.

Cosmetic products which can be dispensed in non-aerated form with a nitrogen pressurized package include toothpaste, antiperspirant cream, hand cream, hair dress, bath oil, shampoo, cleansing cream, lotion make-up, and vanishing cream. As spray products, there are such possibilities as colognes, mouth wash, and body rub.

Pharmaceuticals also offer several products which could advantageously be packaged in this manner. Vitamins, which are oxidized by air, can be dispensed dropwise without exposing the container contents to the atmosphere. Other pharmaceuticals that lend themselves to this form of packaging are ointments, lubricating and spermicidal preparations.

The following are the advantages of a pressurized package over conventional types of packaging:

1. Self dispensing.
2. Sealed package.
3. Package not deformed with usage.
4. Non breakable.
5. Preservative can be reduced or eliminated.
6. Package sterility maintained.
7. High viscosity products readily dispensed.
8. Volatile components kept in package.

1. Self dispensing.

Perhaps the greatest advantage of the pressurized package is that it is self dispensing. The ease with which the product can be dispensed makes this package especially appealing for baby products. It is possible to dispense a product with the use of only one hand. The thumb can be used to press the valve while the palm of the hand receives the product. Economically, this self-dispensing package competes favorably with a plastic squeeze dispensing bottle and also with the separate pump dispenser and glass bottle.

2. Sealed package.

The product cannot be tampered with in any manner. The manufacturer can be assured that nothing in the product has been changed from the time it left his plant. Furthermore, atmospheric contamination or oxidation does not occur, as it is virtually hermetically sealed.

3. Package not deformed with usage.

A frequent criticism of the collapsible tube is its appearance after use. The pressurized package maintains its shape even though nearly empty. Properly formulated and pressurized, over 90% of the product can be expelled from this type of package. This compares favorably with the collapsible tube even when it is used properly.

4. Non-breakable.

Since at the present time only drawn metal containers (2-piece) and side seam metal containers (3-piece) can be used with this type of package, we have an unbreakable container. This is especially useful for products such as shampoo which are to be used in and around a basin or tub. Such containers, which are pressurized at up to 100 lbs./sq. in. gage at 70°F., are covered by the Interstate Commerce Commission regulation Section 73.302(a) (5) of Tariff No. 9.

5. Preservative can be reduced or eliminated.

Since there is no possibility of contamination by atmospheric bacteria, yeasts, or molds, there is a strong possibility that with many products the preservative can be reduced or even eliminated. It may even be possible to sterilize the product with ethylene oxide and maintain the product in a sterile condition in the container. A small amount of ethylene oxide in the nitrogen may also be a means of preventing bacterial decomposition in the product.

6. Package sterility maintained.

With certain pharmaceutical products it is important that sterility be maintained. This can be assured with a pressurized package. The product in the spout can be protected from contamination with a suitable plug.

7. High viscosity products readily dispensed.

Since pressures of up to 100 lbs./sq. in. gage at 70°F. of gas pressure can be used in the container, very high viscosity products can be dispensed. The one limitation is that the product must have some flow so that the compressed gas will not cavitate. The gas should all be above the product in the head space. If the product does not flow, there is the possibility of losing all the compressed gas if the container is used immediately after it has been stored in an inverted position. This problem has been partially overcome in the case of toothpaste by the use of a large diameter dip tube. In this way, even if the valve is opened after the container was stored in an inverted position, there will be enough paste in the tube for one usage, thereby preventing the loss of pressurized gas.

8. Volatile components kept in package.

Loss of volatile components from products can be eliminated with the use of a pressurized package. Also, such volatile materials as ethyl alcohol can be incorporated in the formulation without loss on shelf aging. Such a package will make it possible to utilize formulations hitherto impractical because of the possibility of volatilization losses with conventional packaging.

Since at a given pressure the amount of gas in the container is dependent on the head space available, volumetric capacity of the container becomes an important consideration in arriving at the amount of fill. With a head space of 25% of the volume of the container, the pressure when the container is nearly empty will be one-fourth of that when it is full. Thus, a pressure of 100 lbs./sq. in. gage initially, will drop to 25 lbs./sq. in. gage when the container is depleted of product. With viscous, high gravity products such as toothpaste, a head space of 33% is desirable since the pressure will not drop as much at the completion of use, thereby assuring a high percentage removal of the product.

The following are the volumetric capacities of steel cans now available for pressure packaging:

Nominal Capacity	Designation	Capacity by Measurement cc.	fl. oz.
3-ounces	American or Continental 3-piece 202 x 214	150	5.07
6-ounce Regular	American or Continental 3-piece 202 x 314	200	6.76
6-ounce Tall	American or Continental 3-piece 202 x 406	230	7.78
9-ounce	American or Continental 3-piece 202 x 509	295	9.98
12-ounce	American or Continental 3-piece 211 x 413	415	14.03
14-ounce	American or Continental 3-piece 211 x 510	485	16.40
16-ounce	American or Continental 3-piece 211 x 604	540	18.26
6-ounce	Crown Spra-tainer 2-piece	215	7.27
12-ounce	Crown Spra-tainer 2-piece	375	12.68

These cans are available with various weights of tin plate and various types and layers of resin coatings.

Since the use of nitrogen does not effect corrosion problems with aluminum as do some of the chlorinated hydrocarbons propellents, there has been increased interest in aluminum containers. The three major can companies as well as Hunter-Douglas Aluminum Corp., of Riverside, California, Sun Tube Corporation, of Hillside, New Jersey, and Victor Industries of Brooklyn, New York, are all pursuing development programs aimed at production of aluminum containers for pressurized packaging.

Peerless Tube Company of Bloomfield, New Jersey, has been in production for some time with a three-ounce size aluminum one-piece container which can be used for nitrogen packaged products.

Outlook and Predictions

We will very shortly have three of the major brands of toothpaste marketed in nitrogen pressurized containers. Should this product be accepted by the public, and there is every reason to believe it will be, this could conservatively account for one hundred million packages a year within a year or two.

Cosmetic products such as hand lotions, cleansing creams, and shampoos are already being tested for pressurized packaging. All of these are large volume sales products. It is not difficult to see that the successful marketing of only a few of these products, not to mention foods and pharmaceuticals, would skyrocket pressurized packages to heights undreamed of even with aerosols.

As a result of this growth there will surely be new valve spout designs as well as improvements and refinements in the already highly developed aerosol valves. Aluminum containers for pressurized packaging in six-ounce sizes and larger are certainly soon to be here.

Tests are now being made to determine the suitability of glass containers, coated or otherwise, for nitrogen pressurized products. This certainly looks like a possibility in view of the fact that carbonated beverages at pressures of 45 lbs./sq. in. gage at 70° F. are packaged in glass bottles. Nitrogen pressurized packages are certainly comparable when at these same pressures.

It is fortunate that aerosol products with liquefied propellents preceded the nitrogen package by several years. Problems of leakage with a fraction of a gram of compressed gas become quite critical. Quality control procedures for checking valve crimp and container leakage will necessarily have to be very carefully done. Microscopically visible flash on the valve will cause a package failure.

A close-up of the filling operation. The active ingredient is introduced into the container from the stainless steel tank at the left. Small hydraulic press in center crimps the valve in place and the container then moves to the pressure-loading mechanism at right where liquefied gas propellent is forced into the can through the valve orifice. (Photo courtesy of Du Pont Co.)

Pressurized packages for cosmetics are now here and in a push-button age are sure to grow in usage and number of products.

Aerosol Items

The language of aerosols has adapted itself quickly to geography, the interesting and chatty *Pressure Gauge* of Aerosol Techniques Inc. points out. It lists the trade names of fluorinated hydrocarbon propellents in various countries as follows: Argentina—Algeon, Freon; England—Arcton, Isceon; France—CF; USSR—Eskimon; Spain—Flurion; U. S. A.—Freon, Genetron, Isotron; Italy—Algofrene; Holland—Fresane; Canada—Freon; Brazil—Freon; East Germany—Frigedon; and West Germany—Frigen.

* * *

Old Empire Inc., Newark, N. J. announces the installation of a completely automatic nitrogen line for the filling of toothpaste, ointments and cosmetic lotions.

* * *

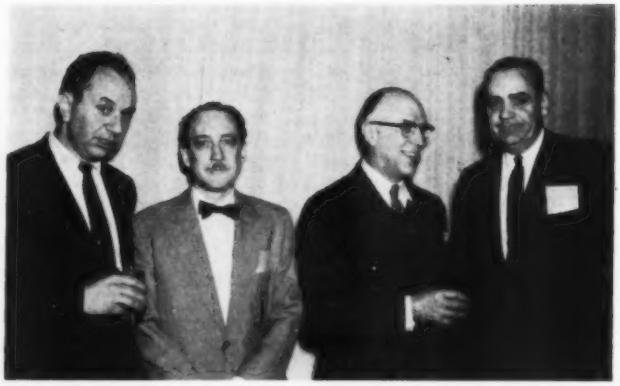
Industry wide production of pressure cans in 1958 will set a new record of half a billion or more units the American Can Co. forecasts according to Robert Hollister, assistant sales manager in charge of pressure cans. The strongest growth items in 1957 were pressure cans for paint, room deodorants, shaving lather, hair sprays and insecticides, he points out. Shaving lather and deodorants may each pass the 50 million cans a year mark in 1958 and hair spray can production may reach 100 million units.

* * *

Ohio Chemical & Surgical Equipment Co., Madison 10, Wisc. has released a technical service bulletin on the application of nitrous oxide in pressurized packing of non-food and food products. It supplies data on the chemical, pharmacological and physical properties of nitrous oxide. Tables show a solubility comparison of nitrous and other gases in water, sugar solutions and in edible fats and oils. The bulletin also contains a reference list of other sources for information on nitrous oxide.

On the Dais: Dr. Paul G. I. Lauffer, Edwin D. Morgan Jr., Dr. Oliver L. Marton, Pierre Bouillette, Ernest Pierre Meunier, President Jacques Masson,

Perfumers Hear Ex



Notables present included Dr. Joseph Weber, Marshall Bennett, Dr. Alfred Ofner and Charles P. Walker

Two expert chemists chat informally: Dr. Alfred Ofner and Dr. Paul Z. Bedoukian

Just as neither snow nor rain nor heat nor gloom stays the couriers of the Post Office from the swift completion of their appointed rounds so too neither snow, nor crippled transportation nor taxes prevents the loyal members of the American Society of Perfumers from attending their annual symposium on perfumery. That is why despite the snow, wind and slush that marked March 20 over 300 members of the association and their guests attended the fourth annual symposium as they had in the past two years when conditions were the same. The theme of the interesting and informative symposium at the Essex House, New York, was "The Perfumer Speaks."

After the welcoming address by President Jacques Masson, Victor DiGiacomo, chairman of the symposium was introduced. Under his guidance the symposium moved along in a smooth and efficient manner.

The first section of the symposium was "The Perfumer and His Creations." The first speaker was Ernest Shiftan, vice president, van Ameringen-Haebler Inc., who discussed "The Prerequisites of a Top Perfume." He pointed out that developing a quality perfume demands not only a technical knowledge and an understanding of the physical characteristics of perfume materials but an aesthetic sense and inspiration. The chief technical requirements of a perfume he stated are that it have an harmonious bouquet, be lasting and be diffusive. The first is achieved by blending compatible fragrances, the second—lastingness—is its ability to sustain fragrance quality on the skin and the third—diffusion—is the quality to permeate the space surrounding the wearer.

Dr. Walter Lengsfedler discussed "The Structure of a Perfume—a Basic Approach to the Creation of a Top Fragrance." Certain cyclic phases are displayed in a perfume, he pointed out, the main ones being top note, base and fixation. Theme and style in a perfume composition, are as important he emphasized as they are in a literary work. The theme represents the basic idea without which no meaningful attempt in the creation of a perfume can be made; and style is the perfumer's preparatory skill with which he secures the proper interplay between the creation's various phases.

Everett D. Kilmer, Lever Bros. Co., discussed "Some Technical Aspects of Fragrance Creation." Briefly he pointed out that the good quality, harmony, distinction and tenacity which mark a top fragrance demand thorough familiarity with aromatic materials, insistence on uniform and suitable odor quality, knowledge of evaporation patterns and adsorptive effects on fragrance profiles.

The second section was devoted to the theme: "Cos-

Chairman Victor DiGiacomo, Ernest Shiftan, Dr. Walter Lengsfelder, Everett Kilmer, Christian F. Wight and publisher Frazer Sinclair

ar Experts on Problems

Despite heavy storm over 300 attend fourth annual symposium of American Society of Perfumers . . . Symposium in four sections covering various phases of the science and art of perfumery

It's always fair weather when good friends get together such as Ernest Durrer, Fred Thiele Jr., Sabbat Strianse, Dr. Charles Kline and Henry Gribou

metics the Perfumer's Concern." Dr. Oliver L. Marton, Shulton Inc. was the first speaker and his address in full is given elsewhere in this issue. Dr. Paul G. I. Lauffer, Northam Warren Corp., the second speaker took as his theme "Perfumes as Cosmetic Materials." He pointed out that the cosmetic chemist must look at the vast array of available perfume oils as materials from among which one must be selected as the most suitable for a given cosmetic preparation. In selecting any raw material, he is guided by information supplied by its manufacturer, to assist him in finding the best one to produce a desired effect. The question of the type of fragrance to be used will often be decided on the basis of user tests or surveys. Within a given odor type, the perfumers of the odorant supply house will be heavily relied upon to produce a compound of the requisite fragrance and compatibilities, and his chemists will be asked for information on its suitability from an allergenic viewpoint.

The final responsibility he added will rest with the cosmetic chemist to determine how the perfume oil and all the other ingredients can best be compounded, and how the finished product should be tested to assure its safety, attractiveness, and efficacy. He may consult specialists such as perfumers, dermatologists, and many others in determining the excellence of his product, but he must have at least a general concept of all the hurdles it must surmount before it is ready for the market.

Packaging was considered in the third section. Christian F. Wight, van Ameringen-Haebler Inc., discussed perfuming problems as related to packaging materials ranging from paper and metal to polyethylene containers. In his talk he emphasized that the influence of the package on the fragrance can be of major consequence on the ultimate odor of a product; and advocated that any new package be rigorously examined from the odor standpoint.

Frazer V. Sinclair, Beauty Fashion, spoke on the merchandising approach. From 1,200 new products introduced in the last five years less than 500 are still on the market he stated. He then analyzed the reasons for the failures under about a dozen heads, illustrating his talk with numerous actual incidents in an informative and humorous manner.

With his usual skill, Pierre Bouillette, Givaudan-Delawanna Inc., discussed perfume as the ever present persuader. In whatever form, under whatever name, in industrial products as well as in cosmetics, in household detergents and toilet soaps perfume he showed is an ever present persuader.

Among the distinguished guests present were William A. Poucher, Yardley Co., Ltd., who came from London. He is well known as the author of the three volume work on "Soap, Perfumery and Cosmetics" and is an honorary member of the American Society. Another guest was Mme. Claude d'Auriac Metzger, Etabs. Bing Fils, Paris, France; and Ernest Pierre Meunier, president of the Technical Society of French Perfumers who announced that the American Society of Perfumers had been made an honorary member of his highly respected organization. A cocktail hour and buffet dinner followed.

An informal chat is enjoyed by Pierre Bouillette, Christian F. Wight, Ernest Pierre Meunier, Mme. Claude d'Auriac-Metzger and President Jacques Masson

Cosmetic Bases — the Perfumer's Concern

DR. OLIVER L. MARTON*

Each specialist is proud of his accomplishments in the particular field in which he has been trained and in which he has acquired considerable knowledge and great skill. Take the cosmetic chemist, for instance. He often must make dozens, or even hundreds of test emulsions, with varying amounts of different emulsifiers, stabilizers, preservatives and antioxidants at a broad pH range, before he arrives at a colloidal system that possesses the desired degree of stability at various temperatures, suitable color, viscosity, texture, flow rate, etc. To say nothing of the intended cosmetic effect he wants his finished cream or cream lotion to have on skin, hair, or specific parts of the surface of the human body for which it is to be used by the consumer.

Such a newly created, chemically speaking completely finished cosmetic creation—proudly considered his masterpiece by the cosmetic chemist—in reality is only half finished without a proper odor presentation, speaking from the standpoint of the perfumer, as well as that of management and the sales and promotion departments of the cosmetic industry. The first odor impression received by the buying public, usually before the prospective customer has had a chance to try out the product on himself or herself, often makes or breaks the sale.

However, when the perfumer gets the chemically finished yet unperfumed cosmetic base, to add his own part of the new creation,—the fragrant sales catalyst called perfume—, he is often disappointed and discouraged by the presence of a chemical by-odor in the unperfumed base. It may sound somewhat far-fetched, or even unfriendly, to call one specialist's masterpiece another one's "headache." Yet, that is precisely what it is—and frequently unnecessarily so—if the chemical ingredients employed in the development of the cosmetic base did not receive due attention from the odor angle at the time the chemical composition of the base was established. The cosmetic chemist in most instances is an experienced chemist, but not a trained perfumer. His daily headaches are the selection and control of chemically suitable oils, fats, fatty acids, alkalies, amines, solvents, humectants, detergents, emulsifiers, emulsion stabilizers, preservatives, antioxidants, penetrants, lubricating, conditioning and dispersing agents, and the like,—to name just a number of them—, not the olfactory behavior of each of these ingredients. Of course, he, himself, is at the mercy of the new materials as they appear on the market, in whatever odor condition they are presented to him by the manufacturer, with whatever olfactory keeping qualities they may have.

The chemical manufacturer, in turn, often lacks enough experience in the field of cosmetics, or is more interested in manufacturing one standard grade only of the new chemical, rather than further refine the material in order to establish another grade, a "cosmetic" grade. Nor have manufacturers of basic chemical materials perfumers in their organizations and, therefore, frequently only learned second or third hand about olfactory suitability or unsuitability of their standard grade products for use in cosmetics. The result is, that many useful chemicals present in cosmetic bases are unnecessarily afflicted with impure chemical odor notes, such as fatty, oily, rancid, scorched or burnt, sour, phenolic, medicinal, metallic, stale, etc., to name just a few. These by-odors usually reappear in the unperfumed yet otherwise finished cosmetic bases. They not only interfere with the intended odor presentation of the creative Perfumer's fragrant masterpiece—the perfume—, but

* Shulton, Inc. Paper read at the Fourth Annual Open Symposium of the American Society of Perfumers, March 20, 1958.

actually are apt to distort the perfume odor to such a degree that its character becomes unrecognizable. In other words, the by-odors of insufficiently refined chemical ingredients used in the development of a cosmetic base without proper application of olfactory control, can destroy the pleasant odor of the artistic perfume creation. Much too often are odor considerations neglected or even non-existent in the selection of chemically suitable cosmetic ingredients, due to insufficient consultation by the cosmetic chemist with expert perfumers during the stage of development; or, due to the unfortunately too often prevalent attitude that it is the perfumer's job anyway to cover an undesirable odor by an acceptable one, and that the perfumer can do this in any case and to any desired extent.

The fallacy of such an assumption becomes clear when the fact is emphasized that the perfumer, to arrive at a well-balanced odor has to make dozens of test compounds with his odoriferous substances, in the course of the perfume creation,—just as the cosmetic chemist does with his emulsions until they become completely stable. These test compounds made by the perfumer cover variations in odor type, as well as percentage of additions, made by re-shuffling and rearranging the fragrant building blocks, until complete odor harmony,—the creative perfumer's goal—is attained.

Those of you who have actually done creative perfume work know that in the last stages of finishing a perfume creation often mere traces of odor-binding, sweetening, lifting or harmonizing agents, or of touch-up materials, or of diffusing or refining agents are used, frequently in concentrations of 1/100 of 1 percent, and even so, in only minute quantities to perfect the harmony in the odor blend. How, then, could anybody possibly expect that such delicately balanced and meticulously perfected, harmonious odor blends could be capable of absorbing such crude odor shocks as are imparted to them by a cosmetic base containing olfactorily impure materials and, therefore, afflicted with coarse by-odors such as those named above?

True, in many cases the perfumer has no choice but to make the off-odor of the cosmetic base a part of his odor creation, by building the latter around the original odor present. However, the resulting final odor impression can at best be a "compromise fragrance," far from being what the perfumer originally intended it to be. For, in such a case part of the perfume added serves to overcome the objectionable chemical odor note of the base and gets lost for the actual perfuming purpose for which it was originally worked out and for which it was added to the base. Wouldn't it have been simpler to avoid the objectionable odor in the base by exertion of olfactory control of the basic cosmetic chemicals according to the perfumer's standards? And wouldn't it mean for the manufacturer of cosmetics that he could have a substantial sum of money a year in perfume consumption, if the perfumer's systematic olfactory control of the chemical raw materials would obviate the necessity of wasting 10 or even 20 percent of the perfume oil added, for overcoming or ameliorating inherent chemical by-odors?

With instrumental chemical analysis at a high standard, and with its daily useful application in the chemical industry, *chemical* purity today is assured for most raw materials entering the cosmetic industry. However, it is my sad duty to state at this place that up to this day and age *strict olfactory* control of cosmetic chemicals is practically non-existent in the industry, or is exerted by people who lack the perfumer's high odor standards and knowledge. No wonder that materials offered to the cosmetic industry often are described in the chemical specification sheets as "odorless" or possessing a "faint" odor, which by the perfumer's standards could be classified as having an acid, foul, pungent, rancid, fatty, oily by-odor, or the like.

The foregoing may sound like an accusation of our *chemical* industry for offering and selling unsuitable materials to the *cosmetic* industry. *It is not meant to be that.* The one to blame is the cosmetic industry itself, for using such materials and for not bringing such obvious odor defects often enough to the attention of the chemical manufacturers who are more than willing to please. I have found the chemical industry very cooperative in every case when they were approached. In the majority of such cases the chemical raw materials were willingly subjected by the manufacturer to an odor-improving treatment, such as better drying or airing to get rid of solvent occlusions or the like; or, by remelting, re-crystalizing, or redistilling where possible, repacking in suitable containers which prevent absorption of off-odors or of humidity from outside or catalytic decomposition by contact with reactive metals. Odor is an important factor in any product and it is present everywhere. Certainly it is a great deal simpler to pack and store a cosmetic grade of talc in wax-lined paper bags and in odorfree surroundings than to try later to cover a phenolic, state or foul odor note absorbed by the powder from outside, by application of a stronger perfume odor at the time the talc is to be scented.

Without wanting to go into too many specific examples I would like to mention that odor control by the perfumer's standards can work wonders, and has already worked wonders, for the improvement of such products as fatty acids, lanolin and its derivatives, surfactants, germicides, emulsifiers, stabilizers, dispersing agents, astringents and the like, where the inherent odor is not due to molecular constellation, but the result of insufficient emphasis on odor problems in cosmetic raw materials by the cosmetic industry itself.

I would specifically like to say a word on behalf of my colleagues who work as perfumers in aromatic compounding houses. They frequently get chemically finished cosmetic bases of unknown composition handed to them for perfuming. They, of course, are unable to make concrete odor suggestions for lack of possibility of pointing their fingers at any of the secret yet odorous cosmetic raw materials employed in the base. For, the position in which most perfumers are placed today is that in which a cosmetic chemist would be if he were denied access to the manufacturer's chemical and physical specification sheets for the ingredients he wants to use in making his emulsions. Or, the position of a doctor who is expected to diagnose and cure a patient's illness without getting permission to examine him. Such a "blind" perfuming job also compares with that of an architect building a house without being allowed to use blueprints. Nor is the perfumer in a better position to successfully accomplish his job under such circumstances than a lawyer defending his client without having had a chance to look into the circumstances that led to the defendant's appearance in court.

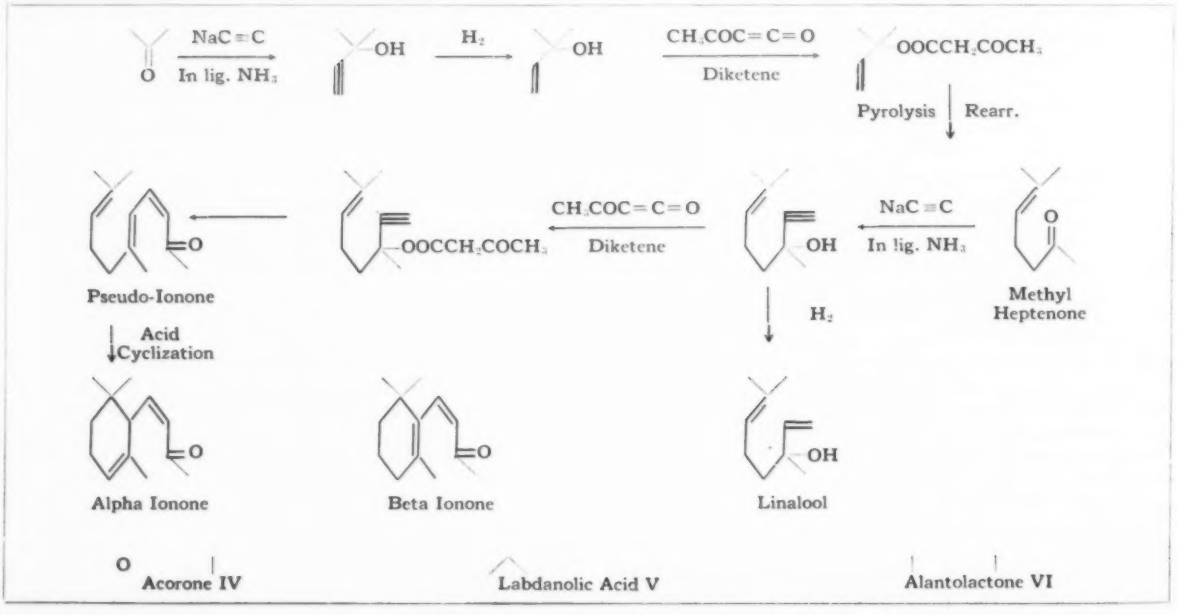
I further believe that I speak for those progressive chemical as well as cosmetic manufacturers who are willing to help raise the standards of our finished products, if I suggest *introduction of systematic odor control of chemical raw materials for the cosmetic and toiletries industries by the perfumer's standards*, for the benefit of all parties involved, including the broad masses of consumers of cosmetics and toiletries. If higher odor standards and better products will result from this paper and as a sequence to this symposium of perfumers, I shall be satisfied with the thought that I have rendered a service to the industry as well as to the buying public.

Progress in P

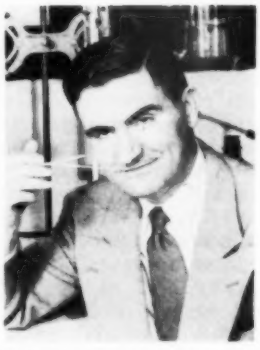
The year 1957 will probably go down in history as opening the age of Sputniks, those little globes encircling our earth, which on the one hand cast fear into men's hearts and on the other hand, spell hope for untold millions of human beings living in misery and hunger. Research has become the key word to the fulfillment of our hopes—provided we succeed in applying it to improve the world rather than to destroy it.

As a result of research, science has been advancing on a broad front, and inevitably our own little industry has made progress too. These advances have been spectacular during the past year, and the perfume industry is on the threshold of a future with possibilities which cannot be fully realized at this time.

The long awaited synthetic terpene materials have appeared on the market, and it is now possible to buy entirely synthetic linalool, linalyl acetate, nerolidol and geranyl acetone. These materials of exceptional chemical purity and fine odor are manufactured from such basic raw materials as acetone and methyl butynol, according to the following series of reactions: (1)



Perfumery Materials—I



PAUL Z. BEDOUKIAN, Ph. D.
Author of Perfumery Synthetics and Isolates

Spectacular scientific advances made in the past year . . . Fourteenth annual review of current developments in science of perfumery . . . Bright future forecast

Of equal importance is the appearance of geraniol, prepared from derivatives of pinene. Since turpentine is a cheap raw material in practically inexhaustible supply in the United States, it serves as a very suitable basic material for the synthesis of terpene aromatics. In the past, we have drawn attention to the work done in this direction which has led to the production of such valuable materials as nopol, myrcene, and now geraniol.

FURTHER WORK WHICH MAY LEAD TO SYNTHETIC ALIPHATIC TERPENES

Some of the work being done at present may ultimately result in the manufacture not only of synthetic terpenes but also of related materials valuable to the perfume industry. In this connection, investigations on the epoxides of readily available terpene hydrocarbons give promise of leading to interesting results.

Myrcene monoxide (previously reported (2)), on treatment with methyl magnesium grignard gave 2,3-dimethyl-6-methylene-2,7-octadiene (3), thus indicating that the epoxide ring was in 2,3 position. The same authors, also prepared myrcene diepoxide (4) which was shown to be 2,3,6,6'-diepoxy-2-methyl-6-methylene-7-octene.

The diepoxide of alloocimene was also prepared and converted to the glycol by hydrogenation. The glycol, 2-hydroxy-2,6-dimethyl-7-octanol was dehydrated to alpha and beta 2,6-dimethyl-7-octanol (called alpha and beta elgenols) (5). Oxidation of alloocimene gave the polyperoxide, which on depolymerization gave the monomeric diperoxide. The latter was successfully hydrogenated to 2,6-dimethyl-2,8-octanediol, then dehydrated to give racemic citronellol (6). It is interesting to note that when a primary-secondary epoxide is reduced with lithium aluminum hydride, a secondary alcohol is obtained, whereas reduction of primary-tertiary or secondary-tertiary epoxides gives tertiary alcohols. The ring opening is reversed in the presence of aluminum chloride or bromide (7).

The oxides of some derivatives of alpha pinene and their isomerization products were investigated in a recent publication (8). The oxides of alpha pinene and dipentene are now available in laboratory quantities as well as in drum quantities, at prices which bring them in the range of basic raw materials for the manufacture of perfumery synthetics. Two bulletins describe the availability and reactions of these interesting oxides (9).

It should be recalled that oxides are often found in essential oils. The presence of linalool oxide in lavandin and lavender is well known. The freshly distilled oil of Mentha sylvestris was found to contain 31-36% of piperitone oxide (10). Hydrogenation of 2-menthene oxide under controlled conditions gave menthol (11).

Alpha pinene has been converted to pinacarveyl hydroperoxide which on reduction gave trans-pinocarveol (12). Reduction of d-3,4-epoxy carane with lithium aluminum hydride yielded d-4-caranol (13). Similarly, substituted styrene oxides have been reduced to the corresponding phenyl ethanols (14).

Amerchols®

LANOLIN CHOLESTEROLS in their most active form.

The Amerchols are non-ionic, natural EMULSIFIERS, PENETRANTS and EMOLLIENTS made from pure lanolin. They will help you achieve superior cosmetic and pharmaceutical formulations by markedly improving stability, texture, appearance and effectiveness.

An Amerchol such as multi-sterol, liquid **Amerchol 101** enhances softening, penetrating and spreading activity while holding desirable moisture to the skin. The surface active Amerchols function at the interface in oil-in-water emulsions to bring about these unique effects on skin and hair.

The Amerchols are ideal, stable ointment bases which induce rapid drug release, and promote optimum healing rates.

WE KNOW OF NO CASE OF AN ALLERGY DUE TO AN AMERCHOL.

AMERICAN CHOLESTEROL PRODUCTS AMERCHOL

American Cholesterol Products
INCORPORATED
AMERCHOL PARK EDISON, NEW JERSEY

Write on your business letterhead for technical literature and suggested formulas.

A recent patent reports the preparation of linalyl acetate and other esters from myrcene hydrochloride (15).

PERFUMES AND STUDIES ON THE NATURE OF ODOR AND ITS PERCEPTION

Maurer continues his studies on the perfume of different classes of plants. During the past year, he has dealt with iridaceae (iris, crocus, gladioli) (15a) and with the odor of Polygalaceae (wintergreen) (16), caryophylleae (carnation) (17), malvaceae (musk mallow) (18), and tiliaceae (linden blossoms) (19). The latter is in the seventeenth in his most interesting series of articles.

Another article discusses volatility, vapour pressure and association effects contributing to the blending and fixation of perfumes (20). In this connection, it is worth mentioning the studies on the relation between the rate of vaporization of aromatic substances and their saturated vapor pressure (21).

Aerosol fragrances are the current rage and several authoritative articles dwell on the problems in creating fragrances suitable for aerosols. A special issue of the American Perfumer was devoted to the Aerosol industry (22). Perfumes in aerosols was the subject of a lecture printed in an Italian publication (23).

Factors determining the value of a perfuming agent in soaps were discussed in a recent publication (24). Another article discusses a convenient experimental method for determining the odor yield of perfumes to be used in soaps (25).

Other papers give methods of solubilizing perfume compounds in water (26) (27). A Japanese patent describes a mixture containing perfume compounds which when applied to textiles, retains its aroma even after several washings and ironings (28).

Seventy-seven of the most popular perfumes in the United States were classified into seven basic types and eleven groupings, from light to heavy fragrances (29). Tables of consumer preference were given in another publication which also discussed factors influencing the acceptability of fragrances for specific uses (30).

Perfumes for tobacco obtained from Glycyrrhiza uralensis and a method of obtaining a mixture possessing a coffee aroma are described in two Japanese patents (31) (32).

The chemistry of substances with the odor of amber is discussed at some length by Lederer (33). Other articles deal with ambergris and ambergris-type compounds (34), and various odors of animal origin (35). The chemical constitution of sclareol and its use in the synthesis of ambra-aromatic substances is the subject of another publication (36).

According to a recent investigation, it is possible to draw an analogy between perception of color and perception of odor, both depending upon energy changes in certain pigments for the transmission of perception (36). Under the title of gustatory and olfactory epithelia, odor and taste perception mechanisms are discussed at some length (37). The same subject is treated somewhat differently by another author (38). An attempt has been made to represent odors by a vector in a three dimensional space of rectangular cartesian coordinates (39).

Every perfumer has considered the influence of smoking on the sense of smell. Preliminary experiments on a limited scale seem to indicate that smoking may dull the sense of smell towards tobacco-type odors only (40). This article led to an interesting round table discussion by well-known perfume personalities (41).

ANALYTICAL PROCEDURES APPLIED TO THE PERFUME INDUSTRY

Some of the most modern techniques are gradually being applied to the analysis of essential oils. Under the title of Microanalysis of Essential Oil Compounds, two Japanese workers described a series of experiments on the detection of terpene materials through paper chromatography. The alcohols were converted to their anthranilates and their Rf values determined. They were found to give a yellow color on treating the chromatographic paper with Ehrlich's reagent. By treating the paper with silicone, it was possible to separate a large number of components and identify them through special color reagents (42). In another paper, the same authors discussed the separation and identification of aldehydes (43). Similar studies were made by German workers (44) (45). In the development of proper techniques for the separation of various components of essential oils, paraffin and spermaceti coated papers were used to obtain Rf values for a range of essential oil components (46). It is possible to identify such carbonyl compounds as thujone in drugs and wines, where it is present in small quantities of 10-20 gammas (47). Paper chromatography has been applied to the separation and identification of the aldehydes in oil of mandarin. The amount of each aldehyde thus obtained was given (48). The procedure for separating and identifying eugenol, isoeugenol and vanillin was also described (49).

Gas chromatography has been applied to the analysis of hydrocarbons in the essential oil of hops (50). It is not surprising that when efficient analytical methods are used, a large number of components are separated out.

Liquid chromatography using silica gel is very useful in the analysis of essential oils since it is possible to deal with relatively large quantities of materials. It has been used for the determination of menthol in peppermint oil (51) and the removal of terpenes from various essential oils (52) (53) (54).

Italian workers have been spending a great deal of time on various methods of analyzing citrus oils, with a view to effectively controlling and detecting adulteration. Samples of mandarin oil were subjected to spectroscopic analysis at various intervals and changes of properties were noted (55) (56). Transmittance curves are given for a number of genuine mandarin oils (57). Another publication indicates the spectroscopic analysis of lemon oils and methods of detecting adulteration (58). Numerous similar experiments have been conducted in an effort to establish fool-proof methods of detecting adulteration in citrus oils (59) (60) (61).

Analysis for carvone in spearmint oil by means of ultraviolet absorption is claimed to be easier, faster and more accurate than standard methods (62). The infrared spectra of Bourbon and Haiti vetivert oils are found to be similar, as are many physical and chemical properties. However, the odors of the two are quite different due to trace components, and in this case only odor can be the guide in judging these oils (63).

The more conventional methods of analysis are still the mainstay in analyzing essential oils. An investigation of Cocking's method for the estimation of cineole in essential oils showed it to be reasonably accurate (64). Indian workers have been critically examining accepted methods of analysis of essential oils and some of their results are of general interest. Formylation of alcohols under different conditions and with different mixtures was investigated (65). Improved formulas were developed for the estimation of alcohols in essential oils in the presence of various other components (66). Limits of applicability of Gildemeister's formula for the

Modulan®

The MODIFIED LANOLIN with new properties.

Modulan is the acetyl derivation of pure lanolin containing all the constituents of lanolin, modified by a unique treatment to impart NEW and VALUABLE PROPERTIES. (U. S. Patent No. 2,725,334)

Modulan forms clear solutions even in cold mineral oil and deposits hydrophobic, emollient films on skin and hair. These desirable protective films are waxy rather than tacky and are very pleasant to the touch.

Modulan is extremely hydrophobic—does not form greasy emulsions and is practically odorless. Because of its outstanding stability and compatibility with oil-in-water emulsions and with soaps and shampoos. Modulan is particularly recommended for use in creams, lotions, baby products, hair preparations, make-up, and ointments.

CLINICAL INVESTIGATIONS HAVE INDICATED THAT MODULAN IS HYPO-ALLERGENIC.

AMERICAN CHOLESTEROL PRODUCTS, INC. AMERCHOL

American Cholesterol Products
• INCORPORATED •
AMERCHOL PARK EDISON, NEW JERSEY

● ACETULAN™—a new chemical design for cosmetics.

estimation of alcohols in essential oils were critically examined and more workable formulas suggested (67).

The methods of Jeancard and Guenther for the estimation of rhodinol in pelargonium oils have been compared and certain modifications made (68). A modified Glichitch method was recommended for determining linalool in essential oils, although the Fiore method was found to be faster (69).

Of the two methoxy determination methods used, that of Zeisel and of Gran, the latter was found to be more convenient in the analysis of oils such as calamus, for the asaron content (70). Micro methods for the determination of small quantities of citral, ascaridole, sulfite turpentine, etc. were described in another publication (71).

The flash points of a number of aromatics have appeared in previous publications (72) (73). Additional useful information can be found in two recent publications (74) (75). The data presented may prove valuable in complying with transportation regulations.

An excellent annual review of progress in analytical procedures of interest to our industry has again appeared in Analytical Chemistry (76).

RESEARCH IN IONONES AND RELATED COMPOUNDS

Since beta ionone is the starting material for the synthesis of Vitamin A, it is not surprising that efforts are constantly being made to cyclize pseudo ionone in such a manner as to yield a high percentage of the beta isomer. In a recent study, 90% beta ionone was obtained by causing cyclization in the cold in a mixture of sulfuric acid and acetic acid (76a). A recent Czechoslovakian patent claims ionone of about 93 per cent beta content when the cyclization is carried out in a mixture of sulfuric acid and ether (77).

Analogs of ionone, namely, 2'-methylspiro (5,5) undec-2'enyl-2-buten-3-one and its isomers, were prepared and a report made on their odor values, which are stated to be weak, tenacious, but not characteristic (78). An isomer of ionone, with the double bond in beta gamma position, has been prepared (79). Various acid induced cyclization products of alpha ionone have been subjected to an intensive investigation (80).

The syntheses of allyl-2'-ionone, allyl-2'-irone and allyl-2'-irone have been reported (81). Synthetic pseudoirone was prepared by treating methyldehydrolinalool with ethyl acetoacetate. The reaction product was then cyclized under different conditions to give mostly iso-alpha-irone, with varying amounts of other isomers (82).

On treating alpha dihydroiononylformaldehyde with malonic acid, the trans-alpha-beta-acid was obtained, converted to the beta-gamma isomer on treatment with alkali, and its ester then lactonized in the usual manner. The lactone was converted to the glycol by reducing it with lithium aluminum hydride, and to the oxide by treatment with naphthalene sulfonic acid. The oxide possessed an amber odor (83). Through a somewhat similar series of reactions, dihydroiso-alpha-irone was converted to 2-methylambreinolide which was reduced to the glycol and then dehydrated to the oxide. In this case, the oxide is reported to possess a fruity odor (84).

MUSK COMPOUNDS

A recent U. S. patent describes the production of Civetone homologs from the corresponding diketones (85). The study of large ring compounds is of interest to organic chemists, and in this connection, it is interesting to note a series of papers by various workers on the properties of macro rings. The more recent papers deal with the synthesis and properties of 1,7-cyclododecadiyne (86) and the transannular displacement in the cyclodecane series (87).

According to a U. S. patent, nuclear acetylated tertiary amyl derivatives of para cymene have strong musk odors and are suitable compounds for perfumery purposes (88).

BIBLIOGRAPHY

1. Chaleyer, Am. Perfumer Aromat. 70, No. 2, 39 (1957)
2. Pigulevskii and Prokudina, Doklady Akad. Nauk. S.S.S.R. 67, 283 (1949)
3. Pigulevskii and Adreva, Zhur. Obshchei Khim. 27, 375 (1957)
4. Ibid. 136 (1957)
5. Naves, Desalbres and Ardizio, Bull. soc. chim. France, 1768 (1956)
6. Desalbres, Lahourcade and Rache, Bull. soc. chim. France, 761 (1956)
7. Eliel and Delmonte, J. Am. Chem. Soc. 78, 3226 (1956)
8. Arbuzof and Frinovskaya, Doklady Akad. Nauk S.S.S.S.R. 112, 427 (1957)
9. Becco Chemical Division, Buffalo 7, N. Y. Bulletins No. 81 and 82.
10. Reitsema and Varnis, J. Am. Chem. Soc. 78, 3792 (1956)
11. Pigulevskii and Kozhin, Zhur. Obshchei Khim. 27, 803 (1957)
12. Schenck, Ger. Pat. 933,925, Oct. 6, 1955
13. Kuczynski and Piatkowski, Roczniki Chem. 31, 59 (1957)
14. Park and Fuchs, J. Org. Chem. 21, 1513 (1956)
15. Bell, Kibler and Strickland, U. S. Pat. 2,794,826, June 4, 1957

15a. Maurer, Soap, Perfumery & Cosmetics 30, 100 (1957)

16. Ibid. 315 (1957)
17. Ibid. 316 (1957)
18. Ibid. 410 (1957)
19. Ibid. 955 (1957)
20. Pickthall, Soap, Perfumery & Cosmetics 30, 712 (1957)
21. Voitkevich and Lyuboshits, Masloboino-Zhirovaya Prom. 23, No. 4, 20 (1957)
22. Am. Perfumery & Aromat. 69, No. 1, 56 (1957)
23. Sfiras, Riv. ital. essenze, profumi, piante offic., oli vegetali, saponi 38, 564 (1956)
24. Smith, Am. Perfumer Aromat. 69, 68 (1957)
25. Sfiras and Demeilliers, Soap, Perfumery & Cosmetics 30, 1133 (1957)
26. Alquier, Perfumery, Soap & Cosmetics 30, 80 (1957)
27. Moore and Bell, ibid. 69 (1957)
28. Ichiguchi, Japan. pat. 2399 (1956) Mar. 31
29. Schweisheimer, Perfumery Essent. Oil Record 48, 288 (1957)
30. Shiftan, Drug & Cosmetic Ind. 80, 168, 264 (1957)
31. Onishi and Kanematsu, Japan. Pat. 7199 (1955) Oct. 7
32. Ebihara, Japan. pat. 4429 (1955) June 28
33. Lederer, Inds. parfum. 12, 231 (1957)
34. Janistyn, Drug & Cosmetic Ind. 79, 322, 394 (1956)
35. Schweisheimer, Parfums, Cosmet., Savons No. 127, 25 (1956)

35a. Jermstad, Dansk Tidsskr. Farm. Suppl. 2, 150 (1956)

36. Wright, Reid and Evans, Am. Perfumer Aromat. 69, No. 2, 43 (1957)
37. Baradi and Bourne, Perfumery Essent. Oil Record 48, 434, 485 (1957)
38. Carthy, Perfumery Essent. Oil Record 48, 545 (1957)
39. Narodny, Perfumery Essent. Oil Record 48, 31 (1957)
40. Moncrieff, Am. Perfumer Aromat. 69, No. 1, 40 (1957)
41. Soap, Perfumery & Cosmetics 30, 1038 (1957)
42. Kariyone and Hayashi, Pharm. Bull. 4, 494 (1956)
43. Hayashi and Hashimoto, Pharm. Bull. 5, 74 (1957)
44. Schulte and Storp, Fette, Seifen, Anstrichmittel 57, 600 (1955)
45. Ibid. 58, 35 (1956)
46. Harada and Saiki, Pharm. Bull. (Japan) 4, 223 (1956)
47. Joppien, Z. Lebensm.-Untersuch. u-Forsch. 104, 393 (1956)
48. Riganesis and Calvarano, Essenze deriv. agrumari 26, 167 (1956)
49. Meyer and Meyer, Arch. Pharm. 290, 109 (1957)
50. Howard and Slater, Chem. & Ind. (London) 1957, 495
51. Hamarneh, Blake and Miller, J. Am. Pharm. Assoc. 45, 713 (1956)
52. Braverman and Solomiansky, Perfumery Essent. Oil Record 48, 284 (1957)
53. Nadal, Am. Perfumer Aromat. 69, No. 6, 27 (1957)
54. Kaczmarek, Planta Med. 5, 51 (1957)
55. Riganesis, Essenze deriv. agrumari 26, 107 (1956)
56. Trifiro, Riv. ital. essenze, profumi, piante offic., oli vegetali, saponi 38, 495 (1956)
57. Trifiro, Conserve e deriv. agrumari 5, 128 (1956)
58. Casu, Riv. ital. essenze, profumi, piante offic., oli vegetali saponi 38, 453 (1956)
59. Giacomo, ibid. 258 (1956)
60. Riganesis, Essenze deriv. agrumari 26, 126 (1956)
61. LaFace and Riganesis, Ricerca sci. 26, 819 (1956)
62. Reitsema and Faas, J. Am. Pharm. Assoc. 46, 381 (1957)
63. Guillot and Sfiras, Recherches 1956, No. 6, 37-9
64. van Os and Zwaving, Pharm. Weekblad 91, 805 (1956)
65. Mathur, Patwardhan, Pant and Lal, J. Proc. Oil Technologists Assoc., India Kanpur 10, 97 (1954) (Pub. 1955)
66. Lal, Marain and Jain, J. Proc. Oil Technologists Assoc. 10, 70 (1954) (Pub. 1955). See also ibid. 74. Ibid. 12, 41 (1956). Ibid 11, 75 (1955)
67. Mathur and Lal. Ibid. 9, 86 (1953)
68. Neirinckx and Struelens, Bull. agr. Congo Belge 47, 553 (1956)
69. Simmons, et al., Analyst 82, 325 (1957)
70. Schantz, Farm Aikakauslehti 65, 265 (1956)
71. Fischer and Kartnig, Arzneimittel-Forsch. 7, 365 (1957)
72. Perfumery Essent. Oil Record 40, 239 (1949)
73. Bedoukian, Perfumery Synthetics and Isolates, p. 467-8 (1951)
74. Bud'ko and Aleshina, Maslobaino-Zhirovaya Prom. 23, No. 6, 38 (1957)
75. van den Dool, Perfumery Essent. Oil Record 48, 30 (1957)
76. Guenther, Kulka and Rogers, Anal. Chem. 29, 630 (1957)

76a. Krishna and Joshi, J. Org. Chem. 22, 224 (1957)

77. Arnold and Hejno, Czech. Pat. 85, 520, Feb. 1, 1956
78. Naves and Ardizio, Bull. soc. chim. France 1956, 1409-12
79. Miki and Hara, Pharm. Bull (Japan) 4, 85 (1956)
80. Buchi, Biemann, Vittimberga and Stoll, J. Am. Chem. Soc. 78, 2622 (1956)
81. Naves and Ardizio, Bull. soc. chim. France 1956, 1713-16
82. Dulou and Clement, Fette, Seifen, Anstrichmittel 57, 595 (1955)
83. Lucius, Angew. Chem. 68, 247 (1956)
84. Wolff and Lederer, Bull. soc. chim. France 1956, 772-6
85. Blomquist and Wolinsky, U. S. Pat. 2,790,005, Apr. 23, 1957
86. Cram and Allinger, J. Am. Chem. Soc. 78, 2518 (1956)
87. Prelog and Kung, Helv. Chim. Acta 39, 1394 (1956)
88. Fuchs, U. S. Pat. 2,759,022, Aug. 14, 1956

Health and beauty aids sales in chain grocery stores in 1956 were $507,000,000. Sales of toothpaste were $87,200,000; home permanents, $12,500,000; hand lotion, $7,600,00; baby powder $11,200,000.

here is a *Discriminating* young lady

When she is selecting her cosmetics, will the containers in which your products are encased be the most attractive she will see?

And after those glamorous containers have remained on her dressing table for a time, or have been jostled about in her purse, will they still look better than the competitive items with which they have been rubbing elbows?

You can be certain that your lipsticks, pursers, compacts, rouge and mascara boxes, and other cosmetic containers will set the highest standards of beauty, fashion and quality — at the point of purchase and in use — when you avail yourself of the services and facilities of Scovill.

We will work with you on your own designs, create designs from your ideas, or design special containers exclusively for you. And more often than not, highly individualized containers can be built around our wide line of standardized components, thus keeping costs to a minimum.

Representatives qualified to discuss your cosmetic container problems may be reached in Scovill offices in these cities:

New York—161 East 42nd St.—Oxford 7-3222
Chicago—4105 W. Chicago Ave.—Nevada 2-2303
Los Angeles—6464 E. Flotilla St.—Raymond 3-7221

Scovill Manufacturing Company—Cosmetic Container Division—99 Mill Street—Waterbury, Connecticut

Cosmetic Containers by **SCOVILL**

Perfume compounds

for colognes

•

modern

•

classic

•

aerosols

•

men's colognes

•

by

Write for our

cologne folder

schimmel

601 West 26th Street
New York 1, New York

Vanilla growing wild in Mexico

Evaluation of Vanilla Extracts

Tentative procedures by paper chromatography

H. P. BURCHFIELD, EDWARD A. PRILL AND DOROTHY FISHER*

Tentative procedures for the evaluation of vanilla extracts by Paper Chromatography drafted by Drs. Burchfield, Prill and Fisher of the Boyce Thompson Institute for Plant Research have been submitted to all members of the Flavoring Extract Manufacturers Assn. for their consideration. Copies of the tentative draft have been forwarded to the Food & Drug Administration for its study and consideration. This method is a chromatographic procedure for screening vanilla extract for the detection of adulterants or substandard manufacturing procedures. Dr. David Jorysch, chairman of the Scientific Research Committee of the Flavoring Extract Manufacturers Assn. states that it is intended that the tentative draft method will be examined and applied in a collaborative study during this year in which it is expected that a number of flavoring extract manufacturer's laboratories and the Food & Drug Administration will participate.

Beans forming on Vanilla orchid

This procedure is based on the fact that pure and sophisticated vanilla extracts contain components that can be separated from one another by one-dimensional paper chromatography. Some of these materials fluoresce when the chromatograms are exposed to ultraviolet light, and the patterns that are observed are distinctive enough to serve as criteria of identity.

This method is potentially useful for establishing the presence of many sophisticants of botanical origin and for detecting the use of spent beans and alkalis in the extraction processes. Different solvent combinations yield different fluorescent patterns, some of which are more useful than others in specific applications. Currently it appears that chromatography in three solvent systems will be sufficient to tell whether foreign plant extracts have been used in significant amounts, and if alkalis have been used in the extractions. This method is also useful within limits for detecting dilution of pure vanilla extract.

Because of the large amount of information that is obtained in return for relatively little effort this method is proposed as a "screening" test for grading vanilla extract on a quality basis in advance of quantitative analysis.

* Boyce Thompson Institute for Plant Research, Inc., Yonkers, N.Y.

APPARATUS

Chromatography. Descending paper chromatography[2] is carried out in a 29½ x 21½ x 23¾" box covered with formica or other materials resistant to organic solvents, acids, and alkalis. The lid of the box is hinged and a plastic gasket is used to obtain a tight seal in order to avoid the escape of vapors into the laboratory. The front of the box contains an 11" x 17" window so that the progress of the solvent from down the paper can be observed. Metal supports about 2" wide are located inside the box extending from front to rear along the sides. They are placed 2½" from the top and are used for supporting the solvent containers. These latter are semi-circular glass troughs about 26½" long and 2" across at the top. The solvent troughs are supported by stainless steel clamps at each end which rest on the ledges in the cabinet. The clamps are designed so they can support glass rods on both sides of the trough parallel to it. Formica cabinets suitable for this work can be obtained from The Chromatography Co., 811 Campus Way, Davis, Calif., at a cost of $110.00 (postpaid).

Equipment for reviewing papers. Chromatograms are viewed by attaching them to an 18 x 22" wooden frame with masking tape or thumb tacks. Two ultraviolet lights are placed behind the paper, and the fluorescent patterns examined in a darkened room. Window glass or a large clock glass should be used to protect the eyes. A plate glass window built into the supporting frame would be most useful. Dark glasses are not recommended since much contrast and detail is lost.

The ultraviolet lights used for observing the chromatograms are obtained from George W. Cates & Co., Inc., Hempstead Turnpike, Franklin Square, Long Island, N. Y. The model number is B-4, and the emission range from 3,200 to 4,000 A with maximum intensity at 3,650 A. A starting transformer is required.

SOLVENT COMBINATIONS

A large number of solvent combinations [1, 2, 3] have been tested, but of these the three listed below have been found to be most useful. All formulae are given in parts by volume.

(1) Isobutanol-acetic. Mix 20 parts of isobutanol, 0.8 parts of glacial acetic acid, and 15 parts of water in a separatory funnel and draw off the lower layer. Use the upper layer for chromatography.

This is the preferred solvent for detecting the presence of foreign botanicals in vanilla since very good resolution is obtained. Most of the authentic samples appear about the same except that Tahiti extract has a fluorescent spot that does not appear in the other patterns.

(2) Acetic-hydrochloric. Mix 30 parts of glacial acetic acid, 3 parts of 37 per cent hydrochloric acid, and 10 parts of water. This solvent combination is particularly useful for detecting differences in processing methods such as the use of alkali, etc. The patterns obtained on authentic F.E.M.A. extracts are almost identical and are entirely different both qualitatively and quantitatively from any of the commercial "tenfold" vanillas that have been tested.

(3) Isopropanol-ammonia. Mix 8 parts of isopropanol, 5 parts of 58 per cent ammonium hydroxide, and 15 parts of water. This solvent shows more differences between authentic vanilla samples than any other tested, and might even be useful for distinguishing between Mexican, Tahiti, Bourbon beans, etc. The patterns are also sensitive to concentration differences, so it is very easy to distinguish an authentic vanilla from one that has been diluted to ½ strength and fortified with vanillin.

Several other solvents might be useful in specific cases. *Butanol-acetic* gives about the same results as *isobutanol-acetic* but overall resolution is not as good. *Butanol-hydrochloric* also gives the same general pattern but is not as effective. *Toluene-acetic* does not move any of the fluorescent compounds found in vanilla from the origin, but might be useful for detecting adulterants which contain caffeic, ferulic, and sinapic acids since it is quite specific for these compounds.

PREPARATION OF CHROMATOGRAMS

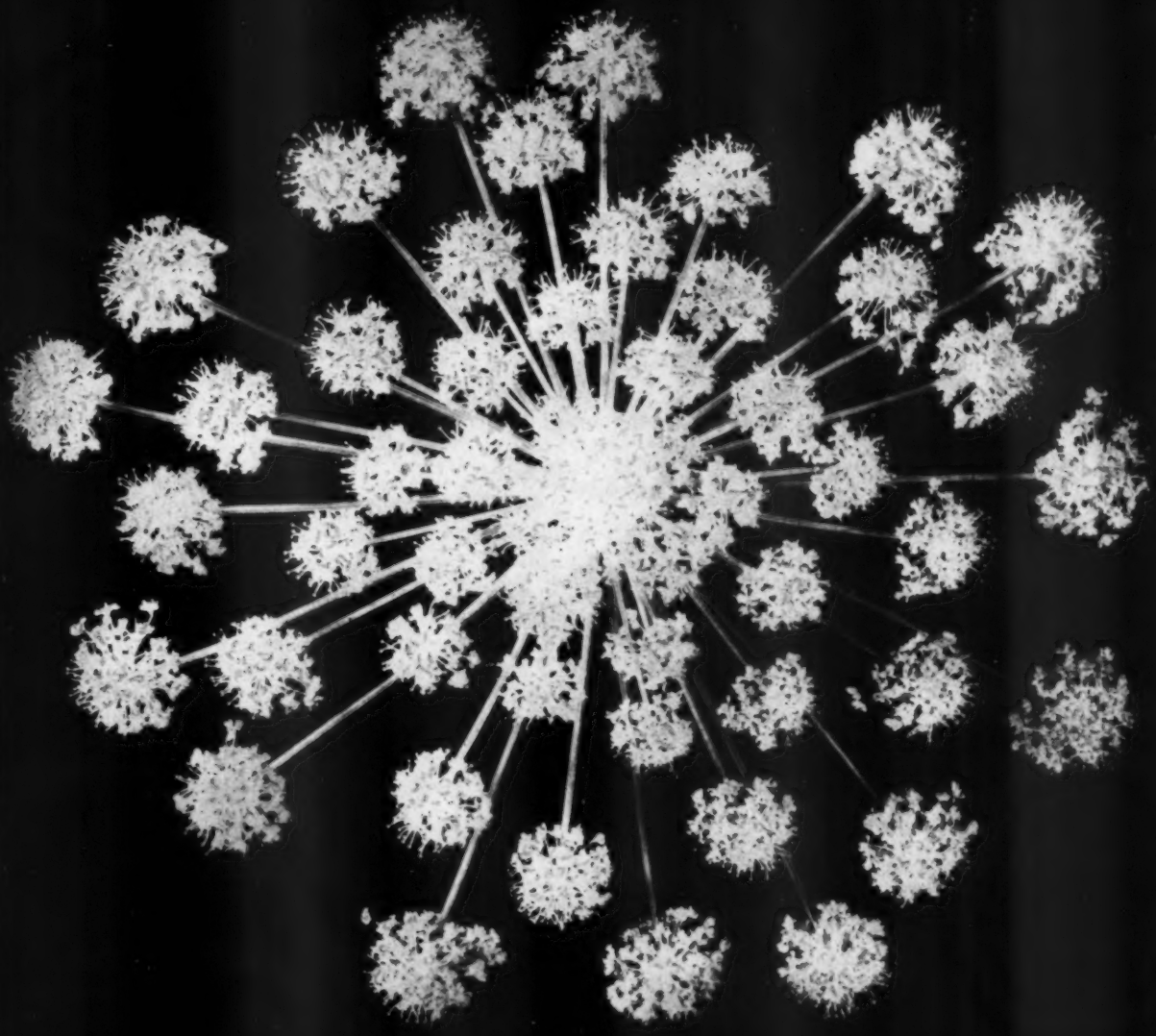
Ten ml. of single strength extract or 1 ml. of tenfold is placed in a 100 ml. round bottom flask with a standard taper joint. The flask is attached to a Rotovac[1] and the pressure reduced by a vacuum pump connected to the Rotovac through a dry ice trap. The flask is placed in hot tap water at about 100 to 150° F. to assist in removing the solvent. When the extract has been reduced to an oleoresin, the residue is redissolved in 2 ml. of 50 per cent aqueous ethanol and stored in a 5 ml. glass bottle with a plastic top.[1] Obtained from Will-N.Y., Inc., High Bridge Station, New York 52, N. Y.

Chromatograms are run on #3 Whatman chromatographic paper about 22¼" long and 18⅛" wide. In comparing a series of samples it is advisable to use papers from the same box since the patterns may tend to vary somewhat from lot to lot. Three standard samples and four unknowns are usually applied to a single sheet of paper. The samples are spaced equal distances apart, leaving a blank space between the standards and unknowns. Ten µl. of each sample is spotted on a base line drawn across the width of the paper about 2½" from the end. A 10 µl. micropipette should be used so that the volume can be controlled accurately. Two 5 µl. applications do not give patterns equivalent to a single 10 µl. application, so details on preparing the chromatograms must be followed explicitly. When the spots are dry two chromatographic papers are clamped together between two 26¼" glass rods (10 mm. in diameter) held together at each end by rubber bands. The rods are placed near the edge of the paper and parallel to the series of spots that are to be chromatographed. The rods are then placed in the trough, and the papers draped over the external rods parallel to the trough so they hang vertically in the cabinet, one on each side of the trough.

One hundred and fifty ml. of solvent are then placed in each trough and the lid of the cabinet closed. Sixteen hours later the cabinet is opened under or near a hood with strong forced draft ventilation. When the solvent fumes have dissipated, the papers are attached to the external rods by means of two wooden clothes pins of the spring clamp type, two to each paper. The rubber bands holding the two glass rods inside the trough together are then cut to release the papers. The external rods with papers attached are then clamped to a ring stand and placed in a hood. The cabinet is cleaned out immediately with ethanol and air dried for a few hours, preferably by placing an electric fan in it. When dry, the papers are examined under transmitted ultraviolet radiation and the fluorescent patterns compared to standards of Kodachrome transparencies of standards.

NOTES ON PROCEDURE

(1) It should be possible to improve the efficiency of sample preparation by removing the solvent under a current of filtered air. Many more samples could be



Specialists in Aromatic Chemicals,
Perfume Compounds & Flavors for all purposes

Esrolko Ltd.
Dubendorf-Zurich, Switzerland, founded 1898

ESROLKO

processed by a single analyst in this way but the total elapsed time for an individual sample would be longer. Before using this method it would be necessary to show whether or not patterns are altered by oxidation of some of the fluorescent compounds.

(2) Many workers feel that better results are obtained if the papers are equilibriated with solvent before beginning the runs. This consists of placing an evaporating dish containing solvent in the bottom of the cabinet with the papers clamped in place a few hours before solvent is introduced into the troughs. The developing solvent is then introduced through holes cut into the lid of the cabinet. These are closed with corks before and after introducing the developer. When two phase solvent systems are used it is customary to use one phase for development and the other for equilibriating.

(3) Temperature should be kept as constant as possible during development of the chromatogram. In particular temperature differentials such as would be obtained by exposing one end of the box to sunlight from a window should be avoided, or the solvent front will not run evenly. Ideally, experiments should be run in a constant temperature room or chamber with no illumination and nearby hood facilities for venting the cabinet.

(4) Intensity of fluorescence and contrast is sometimes improved by exposing papers to ammonia or hydrochloric acid fumes or spraying them with a solution of aluminum chloride just before viewing. Apparently this is not worthwhile in the case of vanilla.

(5) A library of Kodachrome transparencies or color prints would be very desirable, if not absolutely necessary in interpreting results. The following should be included: (a) a series of authentic samples from various sources run in different solvents; (b) a single authentic sample run a number of times to show normal variability in testing; (c) an authentic sample run at several concentrations to show the effects of dilution; (d) patterns obtained on some selected materials that may be used for adulteration; (e) patterns obtained on new and spent beans extracted with alkali and isopropanol at high temperatures; (f) some representative commercials tenfolds; (g) some representative commercial singlefolds.

Kodochromes obtained on papers developed with hydrochloric-acetic and isopropanol-ammonia are highly satisfactory. Unfortunately some of the fine detail which is obvious to the naked eye in the butanol-containing solvents is difficult to record photographically.

(6) It would require a smaller initial investment in equipment to run chromatograms by the escending technique in battery jars[4]. However the cabinet method is much more practical for the number of samples per day usually evaluated in these laboratories.

(7) It is likely that quantitative applications of this test could be developed by eluting various sections of the chromatograms with solvents and determining fluorescent and absorption spectra.

(8) It is possible that similar tests could be used to characterize other flavoring extracts as well as products such as carbonated beverages.

DISCUSSION

Present indications suggest that this technique may be the key test for evaluating the quality of vanilla extracts. It can be used to separate the good samples from the spurious ones, and quantitative methods then applied to obtain substantiating evidence[3]. It will probably detect most foreign plant extracts when used in economically important amounts, since most of them contain materials which fluoresce under ultraviolet irradiation[3]. It will not detect many organic acids, esters, etc. or some aromatic materials such as vanillin or vanitrope, but this is not necessary since quantitative methods will supply all the information required in this area.

The test is very effective for detecting vanillas prepared with alkalines mestrua. This is important since alkali extractions might be used to build up resins, organic acids, amino acids, etc. so that extracts prepared with substandard amounts of beans might meet these particular specifications because of exhaustive extractions. However a chromatographic test would reveal the use of such a process immediately, and a new set of standards based on the *total* amounts of amino acids, organic acids, etc. extractable from vanilla beans could then be called into operation.

Chromatographic tests have been made on 6 brands of commercial tenfolds and 14 brands of single-strength extracts. Two of the tenfolds and two of the single-strength extracts, or 20 per cent of the total, contained fluorescent materials not found in pure vanilla, and therefore are adulterated. The remaining 4 tenfolds and 9 of the singlefolds gave patterns distinctly different from F.E.M.A. extracts. This could have been caused by the use of adulterants, but more likely arose from the use of alkaline menstrua coupled with a substandard weight of beans. Five of the singlefold extracts or 25 percent of the total number of samples examined gave patterns equivalent to F.E.M.A. vanilla extract.

REFERENCES

1. Bate-Smith, E. C. Leuco-anthocyanins. Detection and identification of anthocyanidins formed from leuco-anthocyanins in plant tissue. Biochem. J. 58: 122-125. 1954.
2. Block, Richard J. A manual of paper chromatography and paper electrophoresis. 484 pp. Academic Press, New York. 1955.
3. Burchfield, H. P., Edward A. Prill, and Dorothy Fisher. Methods for establishing the authenticity of vanilla extracts. Proceedings Flavoring Extract Manufacturers' Association, pp. 61-71. 1957.
4. Mitchell, Lloyd C. Ascending paper chromatography: A way to do it. J.A.O.A.C. 40: 999-1029. 1957.
5. Haech. K., and M. V. Tracy. Moderne methoden der pflanzenanalyse. Vol. 3. Springer-Verlag., Berlin. 1955.

Packaging is more important than ever before in completing an initial sale as well as in obtaining repeat business. Your package represents you at that last critical point in your business—at the moment the buying decision is made. Give it your best effort.—*A. C. Nielsen Jr.*

"Don't make me so beautiful that it will cause complications."

HELIOTROPINE . . . for sweet, floral fragrances

GERANIOL . . . the essence of rose geranium . . . for soap and perfumery

SAFROL . . . sassafras . . . long-lasting, with unusual stability

TERPINYL ACETATE . . . widely used bergamot-type . . . economical, versatile

the essence of success in soaps and perfumes!

These four popular fragrances from our extensive library are available for immediate delivery. They're manufactured in our plants under the same rigid quality control as Penick pharmaceuticals.

You will find these aromatics fully compatible with most formulations. Their stability makes them ideal for aerosols. In soaps they give excellent penetration.

We will be glad to send generous samples of these and other successful scents or to assist in developing unique fragrances especially for you.

PENICK

Perfume, Flavor and Aromatic Chemicals Division

S. B. PENICK & COMPANY 50 CHURCH ST., NEW YORK 8 · 735 W. DIVISION ST., CHICAGO 10

Flavor Alone

FLAVOR, as a primary measure of food quality, is a commercial asset. To increase the understanding of flavor's elusive characteristics, chemists and food technologists have devoted considerable effort to fractionating the complex chemical mixtures and isolating the components that contribute to flavor. The practical aim of research along these lines is to put better food products on the market.

Much pioneering work in the field of organic chemistry was based on the analysis of essential oils and flavoring materials; isolation and identification of many unknown compounds resulted from these studies. The names of many organic compounds suggest their source and their dominant odor character—for example, vanillin from vanilla, the so-called fruity aldehydes from peaches and strawberries, cinnamic aldehyde from cinnamon, pinene from pine oil and citral from lemon or lemon grass.

The chemistry of flavors and odors is usually complex. Compounds which carry all or part of the primary aromatic character of a flavoring cannot of themselves duplicate a natural odor. In natural products 10, 20, or 50 chemical compounds may combine to produce the total odor; commercial perfumes or flavoring may contain as many as 30-50 natural oils and synthetics, and the total number of chemical compounds involved may be in the thousands. The contribution of the secondary aromatics—those that play supporting roles, such as in blending—is difficult to define either by odor analysis or by chemical testing. Early analytical studies of natural flavorings were directed primarily at those few components present in the largest concentrations, but a tenth of one percent by weight, or a mere whiff, is enough to stimulate the nose.

Present-day micro-separation and analytical techniques are refined enough to permit the investigation of flavor constituents in milligram quantities. Thus fractions which have interesting odors but leave no visible trace in the container can be isolated and described. Many of the supporting compounds whose presence and contribution were previously unknown have been uncovered through modern analytical procedures, particularly paper chromatography. Obtaining the odorous traces may require concentration by distillation or extraction starting with 1 or 2 tons of material to yield only a few hundred milligrams of the potent fraction.

The "isolation" approach to flavor, when directed by odor and flavor analysis, provides detailed information about the total complex which flavor analysis alone cannot define. If the problem is to develop a coffee aromatic, for example, a concentrate of this aromatic is prepared and fractionated, and the proportions which have flavor significance are isolated and identified. These components, prepared from other sources, can be added back to reinforce the flavor of the original product. Many components of coffee have been studied in this way, and over seventy compounds, contributors to flavor, have been identified. Other products, such as synthetic flavorings and perfumes, have been developed by first isolating and identifying the components from natural oils and then preparing the corresponding synthetics.

Minor components

Delving into the area of minor components has two potentially tantalizing results. For the chemist there is the isolation of new compounds or compounds which were not thought to occur naturally; Dr. Kjaer in Denmark is studying the occurrence and structure of some unusual isothiocyanates and their glucosides in plants. For the flavorist there is the hope of finding components which have profound effect on development of good flavor, for example, by blending. Widely used flavorants such as vanilla and pepper undoubtedly contain fractions which, if isolated, would be more generally applicable and effective blenders.

Good flavor in a food product often signifies the absence of off-notes; the isolation approach is a most effective method of understanding problems of poor flavor. From Dr. Stuart Patton's work at Pennsylvania State University the unlikely compound methyl sulfide was found to be responsible for the so-called normal odor of milk. This same compound also appears to be partly responsible for the off-flavors developed during irradiation of food-stuffs with gamma rays, for preservation. In concentrated form, methyl sulfide smells like rotten eggs; in fresh milk where it is measured in parts per billion, it is unobjectionable.

As a result of fundamental investigations of flavor, a number of new food products are already in use. With more precise information on what components go together in natural flavors and how the compounds interact, our knowledge of flavor will be greatly increased. and "home-cooked" foods for the mass market should improve considerably.—*Industrial Bulletin 348 of Arthur D. Little, Inc. December 1957.*

Fruit & Syrup Manufacturers Convention April 18-19

The complete program of the 41st annual meeting of the National Fruit & Syrup Manufacturers Assn. which will be held in the Hotel Roosevelt, New York, N. Y. April 18 and 19 has been announced.

President William S. Conway Jr. will open the convention at 9.30 a.m. April 18 and will present his annual address following the report of Morton D. Wool of the convention committee. Robert M. Rubenstein, executive director and counsel will then present his report. He will be followed by Julius Abrahams who will give the treasurer's report.

Robert T. Benjamin will then give the report of the Public Relations Committee and Dean J. Limpert will report on freight and traffic. L. George Rosskam will report on membership.

Dr. Donald V. Josephson, Pennsylvania State University, will present a paper on "Fruits, Syrups and Flavors—What are You Selling?" Luncheon will follow.

At the afternoon general session the following papers will be presented: "Food Additives Legislation and the Fruit Products Industries" by Dr. Bernard L. Oser, president Food & Drug Research Laboratories; and "Production Problems," a discussion by Francis H. Tolan, Henry & Henry Inc., who will act as moderator and Morton D. Wool, New York Extract Co., Jack Slawitsky, E. B. Evans Inc. and Dr. Irwin F. Plagge.

The program for April 19 will include an Early Morning Breakfast followed by the report of the nominating committee by Arthur H. Melnikoff and the election of officers. Francis H. Tolan will report for the auditing committee; Julius Abrahams will report for the budget committee and Dean J. Limpert will report for the resolutions committee.

Two papers will then be presented, one, "Handling Sugar the Modern Way—Liquid and Bulk Granulated" by I. Vincent Gage, Refined Sugars & Syrups Inc., and "Our Industry—Where Do We Go From Here?" by Howard B. Grant, Ice Cream Field.

There's nothing like a new hat

And there's nothing like a new Goldcôted Richford Basket-Weave Cap to transform ordinary jars and bottles into radiant, sales-winning containers for your products.

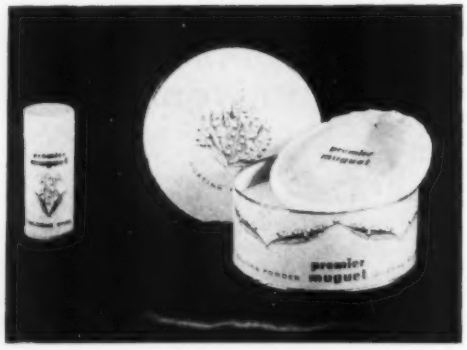
These sparkling additions to the boudoir, finished in gleaming Goldcôte or Silvacôte, are available in sizes 20/410, 33/400, 48/400, 51/400, 58/400, 63/400 and 70/400. Remarkably low in cost. Write today for samples and prices.

RICHFORD
CORPORATION

Offices and Plant:
3618 Oceanside Rd.
Oceanside, N. Y.

Showrooms:
Empire State Bldg.,
350 5th Ave., N. Y., N. Y.

Packaging and Promotion



1.

1. BOURJOIS

"Premier Muguet" Dusting Powder is packaged in a white oval box, banded and imprinted in gold. It contains a velour puff covered in pastel green taffeta which also bears the legend in gold. Embossed sprays of lilies of the valley in green, gold and white decorate the cover and sides of the box.

2.

2. SCANDIA

The Scandia Sales Corp. announces the new packaging of Secret Touch Cosmetics. The color scheme is gold and maroon with touches of pink. Bottles and jars are gold-fired with gilt metal tops and maroon, gold and pink labels. The powder box is of etched gold paper with embossed maroon stamping. The lipstick case is maroon with gold crowns and has an engineered base for click-in refills.

3. MAX FACTOR

Max Factor's newest lipstick shade, "Pink 'N Orange," was created for the intense color of this year's fashions. The new lipstick was introduced on April 6th, with national advertising beginning April 13th. The colorful counter merchandiser was designed to hold a dozen lipsticks.

3.

4. MONICO

A nation wide summer promotion of the Christmas in July fragrance series is scheduled to begin on May 15. Two new preparations will be available this year. Christmas in July Cologne Spray Mist comes in a white, "hourglass" bottle with a golden cap. The white gift box is decorated with pastel colored snowflakes. Both the bottle and box are lettered in red. Christmas in July Perfume is nestled in folds of white satin and packaged in a curved white contour gift box covered with pearlescent antique satin paper. The logo is embossed in gold.

5. NORTHAM WARREN

A new liquid deodorant and anti-perspirant, Odo-ro-no Satin Sponge, is being introduced by the Northam Warren Corp. The cool blue liquid comes in a translucent bottle,

topped by a nylon covered neoprene sponge applicator. The bottle comes incased in a pink boot.

6. CHANEL

Chanel has designed a new box for its bath powder. The new presentation is a round box of white plastic, decorated with a gold Chanel monogram. Because it is also moisture proof, the new box keeps its luxury look indefinitely. The newly packaged bath powder is available in all Chanel fragrances. 8 ounces, it will retail at $5.00 plus tax.

7. LEHN & FINK

Lehn & Fink Products Corp. has added a pink spray deodorant to its line in time for the annual Etiquet half-price sale. To draw attention to this promotion and stimulate "impulse" sales, a three foot high floor stand "dump bin" is being made available to the trade. Bold black printing on a pink-and-white striped background announces the sale price while the pink bin carries information on the deodorants.

8. HAZEL BISHOP

The newest of the aerosol hair sprays, a Hazel Bishop Product, is presented in a wrap designed by the Raymond Spector Co., Inc., and produced by Donrico, Inc. The same label is used for the Regular and Super Soft hair sprays. A turquoise color ink blends with gold bronzing and embossing. The overall appearance of a white quilted background is achieved by embossing a small diamond pattern on Dromekote stock. An alcohol proof varnish protects the surface.

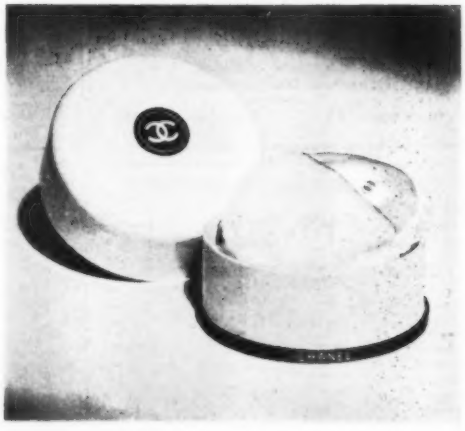
9. GERMAINE MONTEIL

Germaine Monteil recently introduced the Super-Royal Lipstick in the Continental Case. According to the manufacturer, this lipstick contains Royal Jelly, Vitamin A, a new healing agent called "Healsel," and a new iridescent pigmentation. The Continental case is a star-scattered golden shaft with an engineered base permitting refills to click in and out as needed.

4.

5.

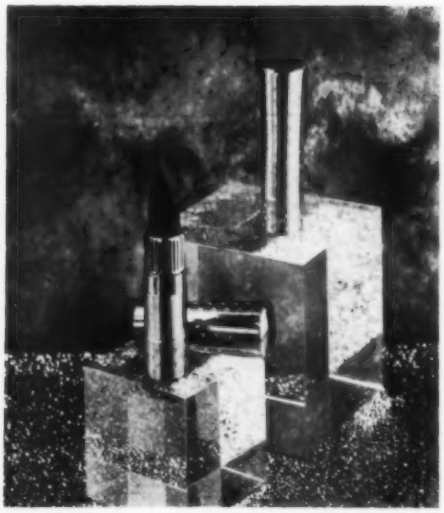
6.



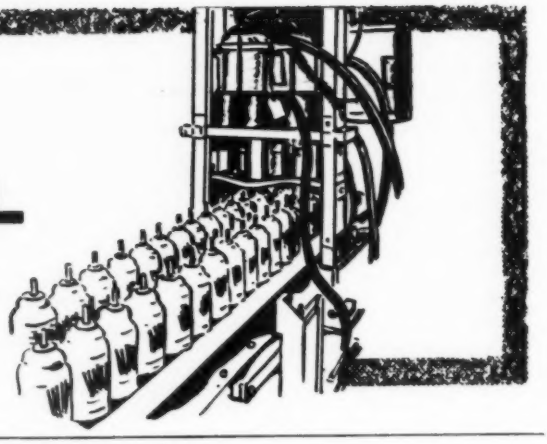
7.

8.

9.



Guide to AEROSOL PACKERS



EAST

Thomasson
OF PA., INC.

AEROSOL FILLING
for Contract and Private Label Marketers

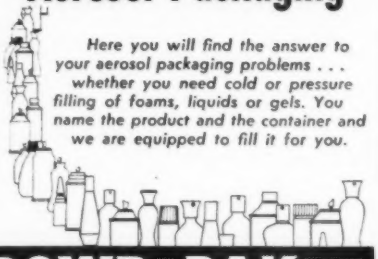
Also Liquid Filling

Complete Research and Laboratory Facilities
Constant Quality Control

Norristown, Pa. BRoadway 5-4355

EAST

Aerosol Packaging



Here you will find the answer to your aerosol packaging problems . . . whether you need cold or pressure filling of foams, liquids or gels. You name the product and the container and we are equipped to fill it for you.

POWR-PAK, INC.
643 North Ave., Bridgeport, Conn.

MID-WEST

Symbol of Experience in Aerosol Development & Packaging

for Aerosol "Know-How" Call
CONTINENTAL FILLING CORPORATION
123 N. Hazel • Danville, Illinois

Old Empire

AEROSOL FILLING
AEROSOL CONCENTRATES
SHAVE CREAM
HAIR LACQUER
COSMETIC SPECIALTIES
PHARMACEUTICAL SPECIALTIES

MT. PROSPECT & VERONA AVES.
NEWARK, N. J. • HUMBOLDT 4-2121
N Y C WORTH 4-7870

IMAGINATION • CREATION • REALIZATION

ATi

AEROSOL TECHNIQUES
INCORPORATED

Exclusively private label manufacturer of aerosol cosmetics, pharmaceuticals and chemical specialties.

Bridgeport 5, Conn. EDison 6-0176

MOVING?

If you're a subscriber to American Perfumer, and you are moving, please let us know. Include your NEW and OLD address, and allow six weeks for the change. Address all subscription mail to:

AMERICAN PERFUMER & AROMATICS
CIRCULATION DEPARTMENT
48 West 38th St. • New York 18

SUBSCRIPTION ORDER FORM

AMERICAN PERFUMER & AROMATICS • 48 West 38th Street • New York 18, N. Y.

Enter my subscription to AMERICAN PERFUMER & AROMATICS for one year at $5.00 ☐ *Payment Enclosed* ☐ *Bill Me Later*

NAME ..... **COMPANY** .....

ADDRESS .....

CITY ..... **ZONE** ..... **STATE** .....

(NOTE: This rate effective in USA & Canada only. To cover added postage costs, subscription rate in other countries is $15.00 per year.)

Aerosol NOTES

by Dr. Winston H. Reed

Old Containers

"When you're through with 'em, what do you do with 'em?" is a question often raised by Mr. and Mrs. Consumer. Let us recall the warning recommended by the Precautionary Labeling Committee of the C.S.M.A. for *metal pressurized packages.*

Warning!

Contents under pressure. Do not puncture.

Exposure to high temperature may cause bursting. Keep at room temperature — away from direct sunlight, radiators, stoves, hot water and other heat.

Never throw container into fire or incinerator.

Nevertheless it is recognized that it would be worthwhile to familiarize the householder with a safe and simple method of opening up the container so that any residue of propellent will escape and the package can then be incinerated without hazard. Of the common methods used in the laboratory for disposing of such cans, probably the simplest technique is as follows:

First; check the operating valve to be sure you have gotten out as much of the contents as possible. Then, chuck the can into the ice cube freezing compartment of the refrigerator, or better yet into the deep freeze, for a couple of hours. Remove and, while the can is in an upright position, puncture a small hole in the valve cap with a sharpened nail or ice pick. Set the container in an empty coffee can to warm up. In a minute or so, the higher vapor pressure gas will have escaped and the hole can be enlarged or one or two or more holes can be made. The container can be left to warm up to room temperature and then, if empty, thrown out.

If there is present any appreciable concentrate, then the container can be inverted and the contents allowed to drain where it would not do any damage, as one would paint or oil.

The C.S.M.A. Aerosol Safety Committee is working on recommendations for the safe disposal of aerosol containers of all types. One of the difficulties faced by those working on this subject is picking a method of disseminating the approved techniques, since directions are too long and involved to put on a label. This problem will be solved in due time.

The disposal of empty *pressurized glass bottles* is usually less of a problem, since valves do not often become clogged with formulations commonly used in these containers. If the package is exhausted and no longer sprays at room temperature, some residual pressure may be driven out by warming the bottle in water *only hot enough to be tolerated by the hands.* The last trace of the contents may then be discharged by operating the valve while the container is warm or even while it is immersed in the warm water. There is little hazard if a glass container, purged in this manner, actually finds its way into an incinerator. Glass bottles can be also chilled in a refrigerator and the caps or closures twisted off with a pair of pliers. Use gloves and wrap bottle with an old towel or rag. One can keep in mind that a completely discharged aerosol should offer no more hazard than any unpressurized metal or glass container, which is thrown away with a closure still on it, as is commonly the case.

The aerosol industry has had an exceptionally good safety record. Only major problems have been when a manufacturer, or a distributor, very foolishly or by mistake sent a case of completely filled and unused scrap products to an incinerator. Such containers should have been purged by operating in a normal manner or, if inoperable, could have been discharged by the deep freeze technique previously mentioned. The manufacturer, or loader, could give his distributors a brief direction sheet covering the safe techniques of emptying scrap containers.

About a year ago, I had the opportunity of inspecting a Fuller Brush warehouse, in Minneapolis, the day after a very severe and damaging fire. It was interesting to note that the damage to aerosol containers was strictly as could be anticipated, proportional to the propellent content. Foam products and many glass bottle packages, which had received enough heat to char the outside coating of the container, or even to soften the valve caps, had not blown and were still operable. The 12 and 16 oz. containers with 70% or higher propellent content had blown out and in some cases the empty container had travelled quite a distance. This was a very severe fire. It demonstrated that the glass aerosol packages have a factor of safety far beyond what one might expect.

Alpine

VERDAL

NEW PERFUME CHEMICAL

•

STRONG GREEN NOTE

•

CLEAN AND PERSISTENT

•

STABLE & NON DISCOLORING

Another Fine Product of Alpine Research.

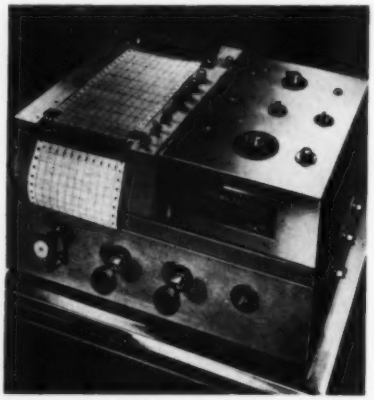
ALPINE AROMATICS INCORPORATED

Metuchen, N. J.

New PRODUCTS & IDEAS

CHROMATOGRAPHIC UNIT

Podbielniak, Inc. announces the addition of another Vapor Phase Chromatographic unit to its complete line of apparatus designed to analyze *almost anything*. The new Chromagraphette Series 9490 is designed for simple and rapid analysis of the great group of gases



and vaporizable mixtures. It is a desk model, for use in the laboratory or in the field. The low power required (150 watts at 115 volts, 60 cycle) permits the use of this apparatus in panel trucks for field analysis. According to the manufacturer the Chromagraphette is capable of analyzing gaseous and liquid mixtures for components boiling up to 125°C (maximum operating temperature is 100°C). Special features are (a) 10 MV recording potentiometer which is optional. (b) Interchangeable sampling system incorporated for either liquids or gases. (c) The dector is an improved highly sensitive thermistor type thermal conductivity cell. (d) Instrument accommodates columns up to approximately 30 ft. in length.

PRE-DETERMINED COUNTER

The Tally "1000" Pre-Determined Counter, made by the Miller Machinery Corp., is designed for use where accurate, positive counting is required for such operations as packaging, batching, cutting of specific lengths, controlling of sequential operations, etc.

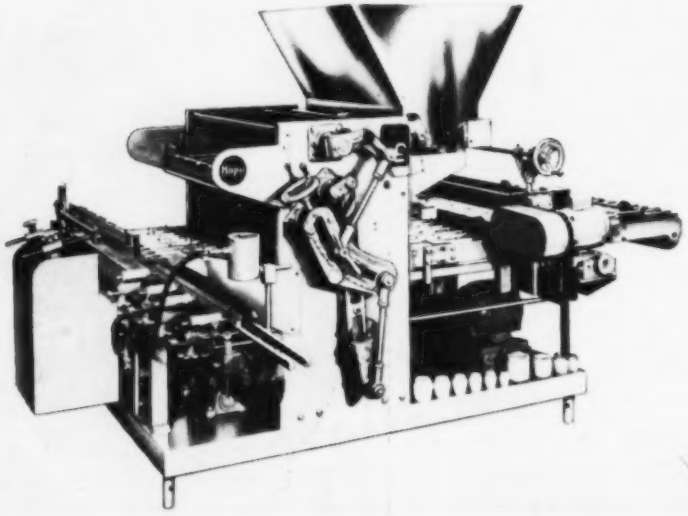
FILLING MACHINE—1.

Hope Machine Co. describes its new Filling Machine Type 19 as accurate and highly versatile. The manufacturer states that this machine fills 10 jar and bottle sizes, with accurate quantity adjustment possible while it is in operation. A front feed-in-line feeding mechanism has a precision designed feeding screw. There is an over-the-line vacuum air cleaner to blast and clean containers. Nylon centering bells position containers nozzle. An automatic top finisher produces smooth product fill with no excess on jar rim, according to the manufacturer. Production speed ranges from 90 to 120 containers per minute.

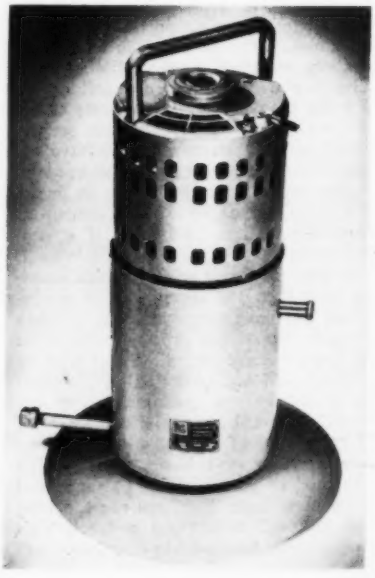
VACUUM PUMP—2.

The Arthur F. Smith Co. announces the new ASCO-VAC 10 series of portable laboratory mechanical high vacuum pumps. According to a statement by the company, these pumps feature a high, efficient pumping capacity, clean and quiet operation, gas ballast, and an economy of operation due to a much smaller volume of oil charge. Free air displacement is 50 liters per minute, with a guaranteed absolute pressure of 0.1 micron with the 2-stage units and 30 microns with single stage. The manufacturer claims efficient operation for longer periods is possible because of cooler running temperatures.

1.



2.



PRELUDE TO DANCE

Opaque Plastic

Courtesy Sculpture Center

Just as Leo Amino gets new and beautiful effects in his sculpture by exploring the full potential of new, modern materials . . .

PFW achieves new beauty in the combination of aromatics by adding the results of modern research to the ancient art of perfumery . . . creating new, distinctive fragrances of unusual beauty and artistry.

If you have not yet discovered how PFW's carefully balanced perfume bases or special compounds can give your products a special significance, we suggest you contact us, soon.

PFW

for odor and taste

AMERSFOORT, HOLLAND • PARIS, FRANCE • BREMEN, GERMANY • BRUSSELS, BELGIUM • SOFLOR LTD. - PERIVALE, ENGLAND

Why..."Encyclopedia of cosmetic material trade names"?

First, let it be known that the title, as lengthy and wordy as it is, does not begin to describe the full content and function of this great reference work by the eminent deNavarre.

To be sure, it presents a comprehensive, never-before published, **international** listing of more than 3000 cosmetic material trade names.

Of equal if not greater importance, the Encyclopedia serves to identify the composition of the particular materials and in many instances also lists specific types of cosmetic items in which they are used... plus a complete, cross-indexed classification of the various types of materials... plus the complete name and address of the supplier of each material.

Over ten years ago deNavarre saw a real need for such a technical reference book as this. That is why and when he started to compile the necessary material from all over the world. In the interim years, as the number of trade name materials grew, as new sources entered the field, the need for this type of reference volume grew apace. And over these years deNavarre religiously devoted time, effort and care in building, editing, refining and **organizing** his expanding storehouse of material.

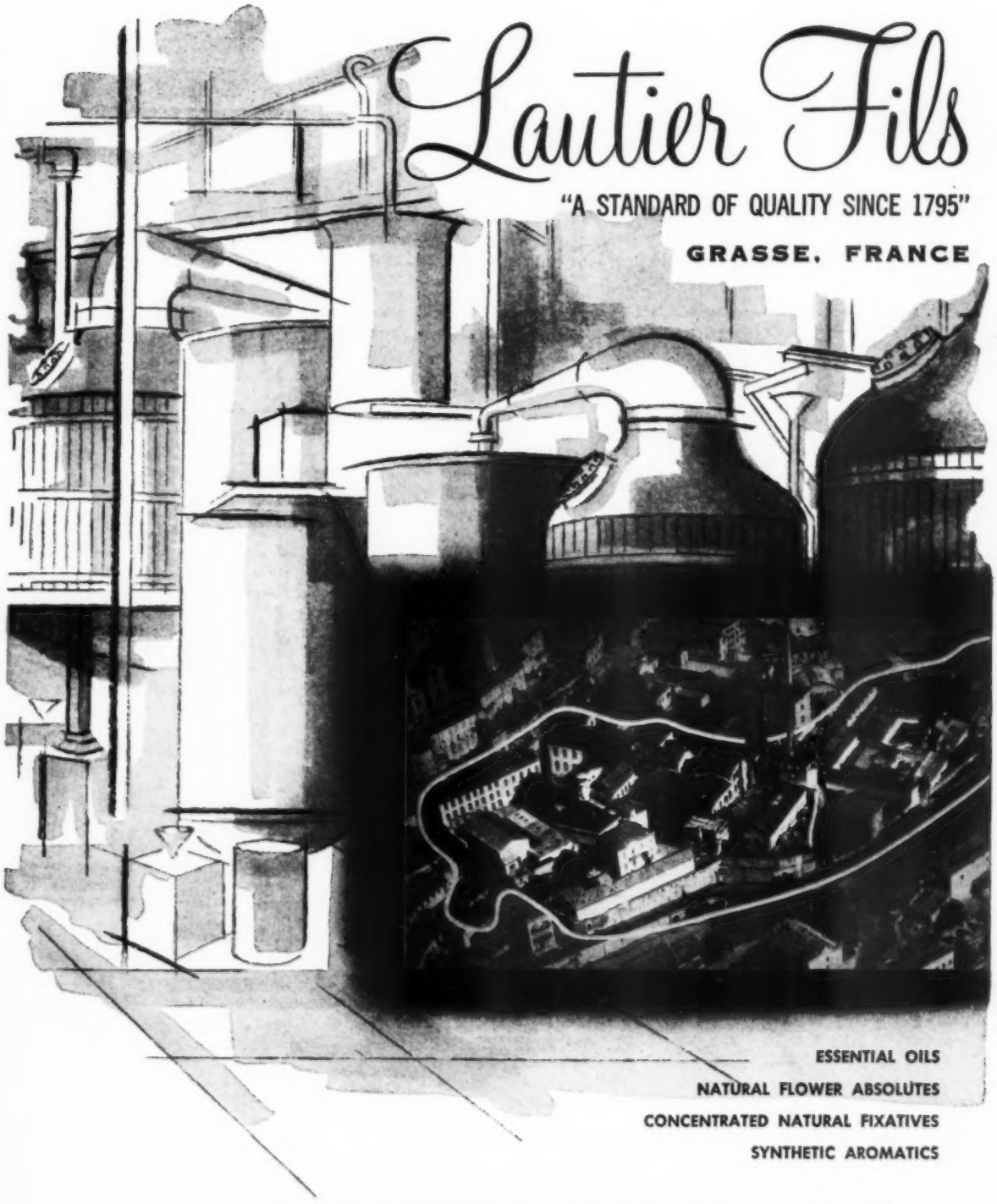
Obviously, this Encyclopedia, because of its definitive content and function, because of its finger-tip reference and cross-reference features, because it does represent the answer to a long felt growing need, will serve its highly selective subscribers not only well but over and over again for years and years to come.

426 pages, 6" x 9", clothbound, shipped postpaid anywhere in the world at **$7.50 per copy.** To order copies, write Book Division, **American Perfumer & Aromatics, 48 West 38th Street, New York 18, New York, U. S. A.**

Lautier Fils

"A STANDARD OF QUALITY SINCE 1795"

GRASSE, FRANCE



ESSENTIAL OILS

NATURAL FLOWER ABSOLUTES

CONCENTRATED NATURAL FIXATIVES

SYNTHETIC AROMATICS

LAUTIER FILS, INC.

321 FIFTH AVENUE, NEW YORK 16, N.Y.

GRASSE • PARIS • LONDON • BEYROUTH • ST.LOUIS • CHICAGO • RIO DE JANEIRO

Book Reviews

MODERN CHEMICAL PROCESSES Volume 4, by the Editors of Industrial and Engineering Chemistry. Reinhold Publishing Corp. 202 pages, size 8¼ x 11¼ in., illustrated and indexed. Price $5.00.

This is a collection of 19 articles which appeared in Industrial and Engineering Chemistry, referred to by the editors as staff-industry collaborative reports.

Three are of cosmetic significance, namely, specialty soaps, chlorophyll, and vegetable oil refining. In each case, the processing in a given plant is the meat of the chapter.

If you are collecting chemical manufacturing plate data, start a file of these volumes.—*M. G. deN.*

EMULSIONS, THEORY AND PRACTICE, by Paul Becher. Reinhold Publishing Corp. 1957. 400 pages, size 6 x 9 in., indexed and illustrated. Price $12.50.

The author has an easy approach to a subject so often treated from a theoretical point of view only. The present work takes in stride, theories developed with pure systems and practical application in commercial systems of "technically pure" materials.

Classical theories like Ostwald's on phase volume ratios are examined and their failings are discussed. Griffin's HLB and Moore and Bill's H/L methods of determining hydrophite-Lipophile balance are discussed.

Truter's work on the emulsifying properties of lanolin constituents is included.

Technique of emulsification, theoretical and practical, discusses various kinds of equipment. A table of proprietary emulsifiers concludes the book.

Only one error was noted on page 10, the "i" in interfacial tension heading was dropped.

The book is well done and will prove useful to all interested in emulsions, theory and practice. The only reservation this reviewer has is on the price which seems high. Otherwise, the book is a credit to author and publisher.—*M. G. deN.*

LABORATORY GLASSBLOWING, by L. M. Parr and C. A. Hendley, First American Edition, Chemical Publishing Co., 1957. 154 pages, 5½ x 8½ inches, illustrated and indexed.

This is a practical guide to the fundamental processes of laboratory glassblowing. The equipment necessary for laboratory glassblowing and its operation are described in detail. Chapters are devoted to the actual glassblowing techniques, from the elementary operations, such as cutting, joining, sealing etc., to the more advanced processes for blowing special purpose laboratory glassware.

NEW UNGUENT BASES AND LOTIONS, Formulae and Uses, by Isaac K. Hoffman, Chemical Publishing Co., 1957. 5 x 8½ inches. Indexed.

An extensive formulary of unguent bases and lotions including Washable Oil-in-Water Unguent Bases, Washable Oil-in-Water Lotions, Nonwashable Water-in-Oil Unguent Bases, Nonwashable Water-in-Oil Lotions, Washable Anhydrous Oil-in-Water Unguent Bases, and Nonwashable Anhydrous Water-in-Oil Unguent Bases. A practical reference and formula guide for the drug and cosmetic manufacturer, pharmacist and physician.

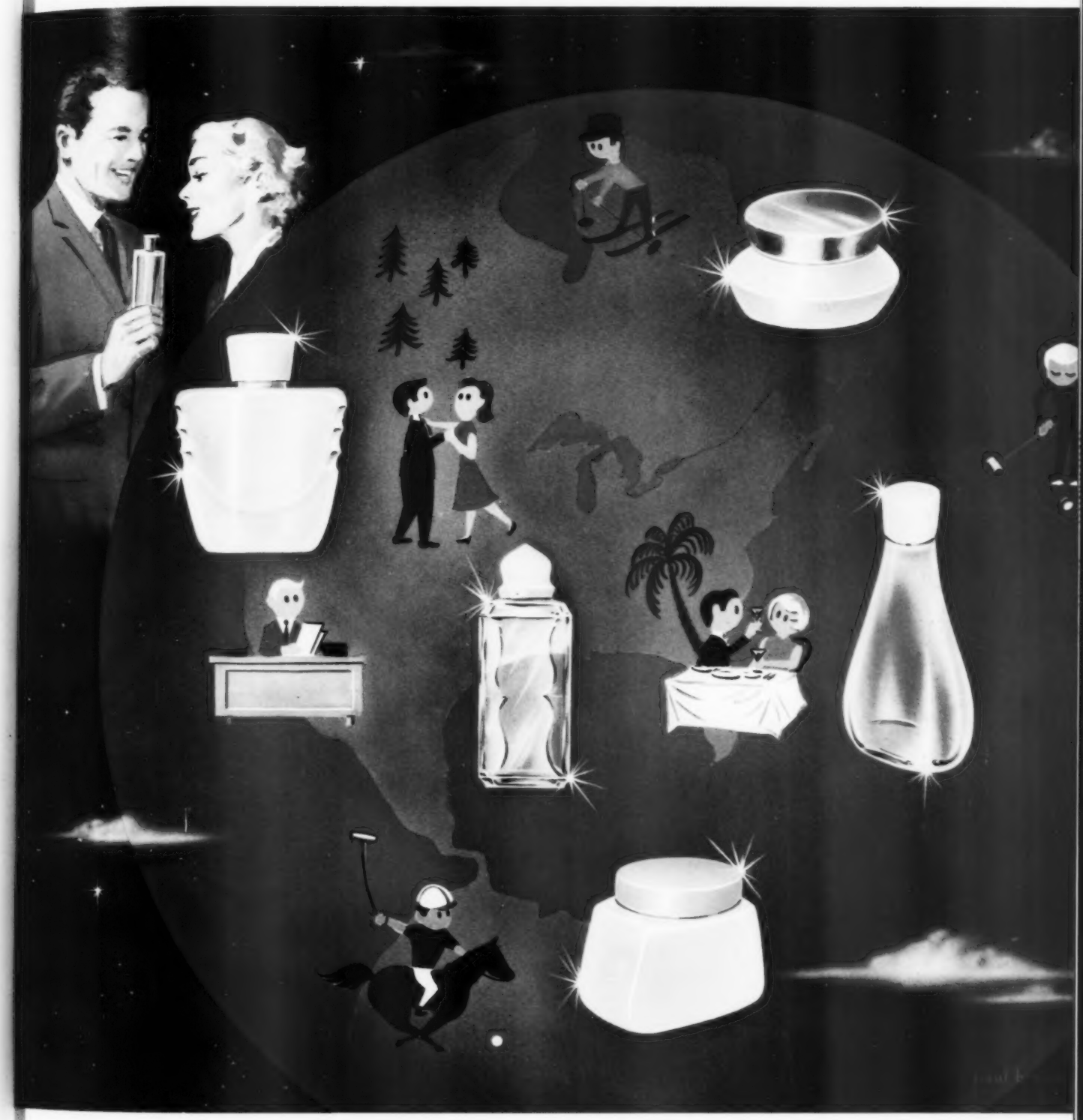
DIE WIRKUNG VON WASCHMITTELN AUF DIE HAUT: (The Effect of Cleansing Remedies on the Skin), by H. Stupel and A. Szakall; Dr. Alfred Huthig Verlag, Heidelberg, Germany; 1957. 231 pages, 6 x 9 in.; 68 illustrations, tables, and diagrams; index.

This monograph contains certainly more than the title might suggest. The first 89 pages (Part A) furnish numerous data from the authors' own work, as well as from the world literature, concerning modern knowledge of morphologic, physiologic, and biochemical features of the skin surface. The viewpoints of the authors will fascinate Biologists, Cosmetic Chemists, and Dermatologists alike. Supreme importance for the hydration, as well as for other physiological properties of the skin surface is ascribed to the "barrier" zone, situated at the base of the stratum corneum. Szakall made this level accessible for observation and analyses by means of stripping with a brand of Scotch tape, 5 cm in width. The barrier contains 42% of water extractable, nitrogenous material, presumably derived from the cellular nuclei. Some of the natural protective functions attributed to this layer are 1) maintenance of hydration; 2) regulation of water passage from the "most" to the "dry" layers of cells; 3) regulation of pH of stratum corneum and skin surface; 4) capacity of binding alkali or acid; 5) protection against influence of certain qualities of radiation; 6) ability to combine with exogenous chemicals. All of these qualities are more or less subjected to the influence of cleansing or detergent agents.

Part B of the monograph, though not less instructive, is harder to digest. It deals directly with the effects of cleansing remedies on the skin. There is a chemical classification of the different agents in use, a description of various methods designed to assay certain responses of human or animal skin to exposure to such agents, and a discussion of desirable or undesirable effects which were observed by different investigators after usage of some of the products. A multitude of variable and/or unknown factors necessitated a most cautions presentation of the results.

Among the points which withstood the authors' conservative attitude, is the observation that, as a rule, cleansing remedies containing fatty acids with a low number of carbons—C_{14} or below—tend to produce primary irritation, with a maximum of this tendency at C_{12}. A similar effect is attributed to the aldehydes present in essential oils and perfumes. The compilation (Part B) culminates at the end where the chemical characteristics of the different groups of agents are listed in correlation with their influence on the skin. The last section (Part C) discusses skin-protecting substances and non-irritant cleansing remedies. Among the latter, products of condensation of proteins and fatty acids are outstanding.—*Franz Herrmann, M. D.*

...glamour in glass!

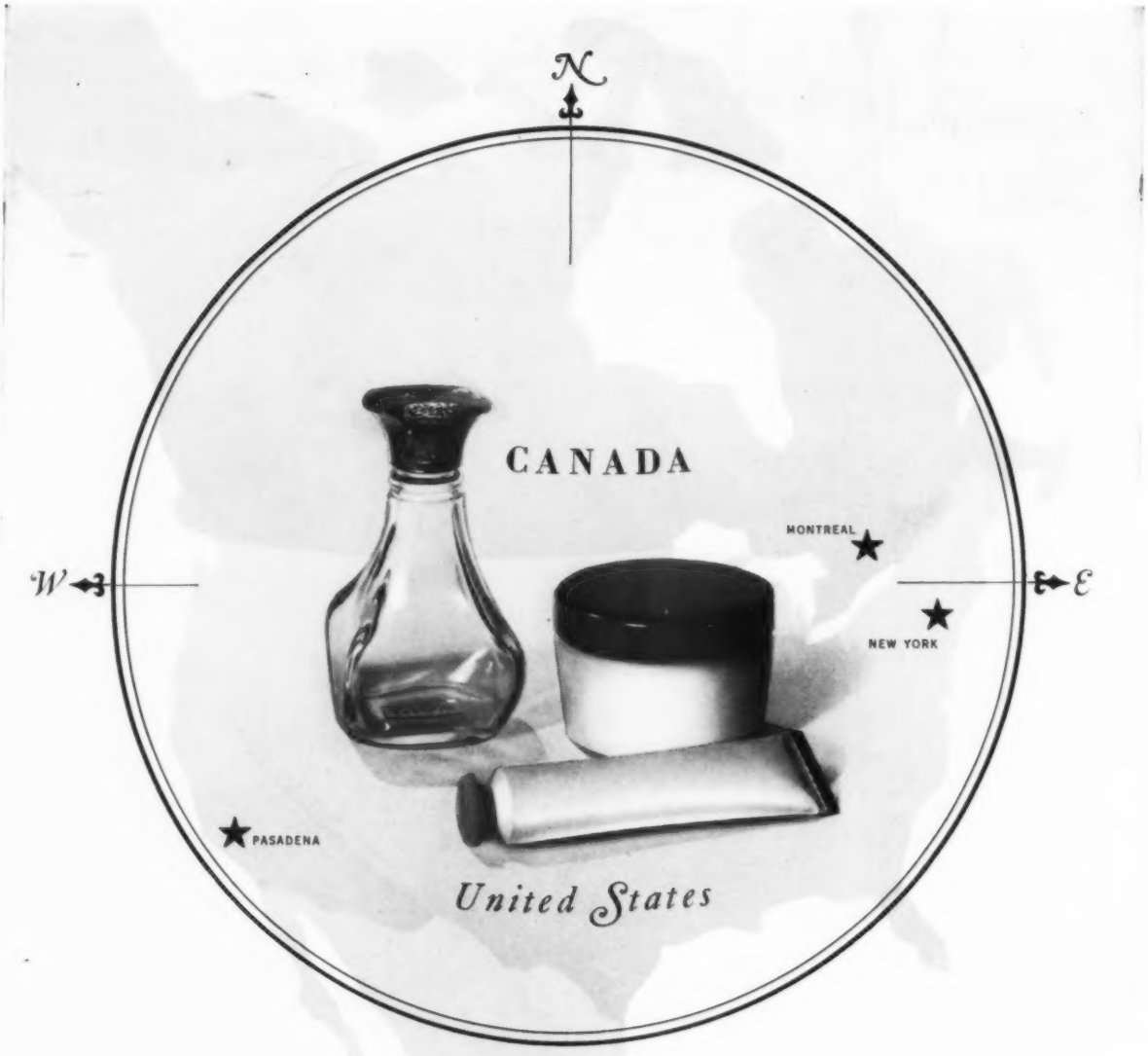


A world of beauty is a man's right, too

The tremendous market for masculine lotions, toiletries, and drugs makes male-styled containers a must. In gleaming, snowy opal, or crystal flint H-A *Private Mold* Containers are imagination in glass—and practical, too. At domestic prices, they add the glamorous prestige of more expensive imports to your men's products. And permanent "Deco-fired" labels can be economically applied at the time of manufacture. *Give your products a very special appeal*—call or write H-A, right now.

HAZEL-ATLAS GLASS division of CONTINENTAL CAN COMPANY

WHEELING, WEST VIRGINIA



FROM COAST TO COAST

Avon's Strategically Located Laboratories in the United States and Canada Provide Manufacture and Packaging for Famous Private Brands of Fine Cosmetics*

Your cosmetics and toiletries have the advantage of production near your best markets . . . East, West or Canada . . . when you have them prepared by Avon. You will find it economical to have your products produced at any one of these laboratories, or at all at the same time, assuring you a real saving in delivery time and cost.

Your Private Brands will be produced with strict adherence to the formulae you desire . . . and be packaged precisely as you wish. Avon's specialized knowledge and experience, developed over the past 70 years, are your assurance of quality in every phase of production.

Call or write Avon for complete information concerning the production of your own brands of toiletries and cosmetics.

AVON PRODUCTS INC.

PRIVATE BRAND DIVISION • 30 ROCKEFELLER PLAZA, NEW YORK

STRATEGICALLY LOCATED LABORATORIES IN SUFFERN, NEW YORK • MORTON GROVE, ILLINOIS • PASADENA, CALIFORNIA • AND MONTREAL, CANADA

Packaging Becoming a Science

Increasingly, John A. Warren, technical adviser to the American Management Assn. packaging division, points out, manufacturers of industrial and consumer goods are realizing the importance of packaging both in selling and in protecting the product. Their efforts to find the best packages for their product at economical cost have sparked extensive research and development by suppliers of packaging materials, equipment, and services. The research results of both package users and package suppliers since World War II are ushering in a new era of packaging.

As packaging-using industries adopt such scientific management procedures as value analysis, quality control, and vendor rating, he said, the supplying companies are creating materials and equipment that will perform under conditions and with an exactitude that would have been impossible five years ago. Packaging, he emphasized, is not yet an exact science, but it is beginning to develop sophisticated engineering processes. The packaging industry is emerging from a trial-and-error period to one in which scientific data and techniques make it possible to predict the performance of a proposed package under variable conditions.

Toilet Goods Sales Reach Record High

Total sales of perfumes, cosmetics and other toilet preparations, *excluding toilet soap*, at retail, again reached a record high in 1957, according to The Toilet Goods Association, Inc. The new record figure is $1,430,700,000, or an increase of approximately 8.3% over the 1956 figure which was the previous all-time record high.

The increase was fairly general throughout the entire range of toilet goods, however, dentifrices again showed a remarkable gain of more than 12% and sales of these products through food stores increased by more than 16%. Sales in variety stores were again slightly lower in 1957 indicating the high degree of purchasing power during that year. Shaving preparations, due to the continued popularity of the more expensive (per shave) aerosol again increased by nearly 8½% with food stores sales gaining more than 12%. It is probable, however, that total units of shaving creams and similar preparations were not greater and possibly were lower than in the preceding year.

The increase in hair preparations which has been a feature of the industry over the past several years showed some tendency to level off. Shampoos gained but not at the previous rate and the bulk of the still sharp increase in hair preparations was supplied by aerosol sprays. This group of preparations has had a phenomenal growth over the past several years and there is no sign of diminution.

Fragrance products as a whole showed a light increase over 1956 but this increase was largely due to heavier sales of toilet water and colognes.

Actual perfume sales were practically the same as in 1956 although some houses showed relatively sharp increases.

Sales through every type of outlet showed a substantial gain over the previous year but the sharpest gains were made in the food store category and for the first time sales through food stores were higher than sales from house-to-house and approached the total sales through department stores. It should be remembered, however, that sales are not strictly comparable as between food and department stores because of the completely different type of products generally handled by these outlets. Drug store sales showed a percentage decline and fell below 29% of the total market for the first time.

The following table shows sales through the various types of outlets since 1950:

	Chain & Independent Drug Stores %	*Dept. Stores & Specialty Shops* %	*Food Stores* %	*House to-House* %	*Ltd. Price Variety Stores* %	*All Other Outlets* %
1950	37.0	27.0	6.1	14.0	11.0	4.9
1951	36.0	25.5	8.5	16.2	10.0	3.8
1952	34.5	22.0	14.0	17.5	8.5	3.5
1953	32.0	22.1	15.5	18.3	8.4	3.7
1954	30.2	22.5	17.1	19.4	7.5	3.3
1955	29.4	22.3	17.9	20.0	7.3	3.1
1956	29.3	21.6	19.1	19.6	7.2	3.2
1957	28.6	20.6	20.3	19.7	7.3	3.5

Attached is table showing estimated volume of retail sales since 1914.

PERFUME, COSMETIC & TOILET PREPARATIONS
SALES AT RETAIL AS ESTIMATED BY T.G.A.
(Figures do not include toilet soaps)

YEAR	*Sales in Millions of Dollars*	*YEAR*	*Sales in Millions of Dollars*
1914	39.8	1936	336.5
1915	45.0	1937	374.0
1916	71.5	1938	412.3
1917	95.4	1939	425.1
1918	103.7	1940	449.9
1919	116.5	1941	463.6
1920	129.5	1942	481.4
1921	126.0	1943	507.5
1922	147.3	1944	593.0
1923	194.6	1945	711.3
1924	220.3	1946	758.2
1925	256.4	1947	743.8
1926	300.2	1948	749.8
1927	329.7	1949	770.8
1928	355.2	1950	840.1
1929	378.4	1951	912.8
1930	336.2	1952	1,004.0
1931	297.1	1953	1,020.8
1932	288.4	1954	1,086.8
1933	300.5	1955	1,192.2
1934	324.4	1956	1,321.0
1935	322.1	1957	1,430.7

A NEW ROAD TO SUCCESS
Please ask for
data sheets and samples

ISO-BERGAMATE "DRAGOCO"

resembles the fragrance of the bergamot oil, along with a soft fruitiness and a delicate, woody background.

DRAGO-JASIMIA

to accentuate fine flower scents – particularly for jasmin – proven essential in deluxe perfumery.

LACTOSCATONE "DRAGOCO"

provides a typical fecal note with a warm animal background and a delicate woody note.

DRAGOCO INC.

250 West Broadway, New York 13, N.Y.
Tel. CAnal 6-5813-15

Use of Collapsible Tubes Increasing

Reasons for continued popularity and comparative advantages stressed by Collapsible Tube Manufacturers Council

MARTIN Z. POST

The recent appearance of new plastic and aerosol containers for some products generally packaged in collapsible metal tubes has prompted requests for comment from the Collapsible Tube Manufacturers Council. The following gives the Council's views.

Collapsible metal tubes have been the preferred package for pastes, creams, semi-liquids and even liquid products for almost a century. Despite the appearance of substitute packages, more than 1,089,000,000 fold-up collapsible metal tubes were sold last year—more than ever before in the industry's history.

Collapsible metal tubes owe their popularity to a combination of features and each feature is in itself almost unique. In considering the merits of plastic and aerosol containers, these features, like size, leakage factors, cost, safety and convenience, should be carefully considered.

Preserve Products—Take Up Less Space

For example, plastics which are likely to be porous may permit the escape of volatile oils, and in such cases do not preserve the contents in the same way as the metal tube.

The user of an aerosol can is restricted to the original size of the can no matter how much of the product has been used—to say nothing of the possibility of not even getting all of the product out. As much as one-third of an aerosol may be used to house the propellent, not the product.

Very few other packages are as airtight as a fold-up metal tube after having been opened.

Tubed products take up less space; so are among the easiest to display on store shelves and counters, and are easiest for consumers to carry around.

The collapsible tube industry is constantly improving its product in terms of coatings, decoration, linings, convenience, openings, economy, safety, size and shape.

Attracting New Uses

New uses for collapsible metal tubes are being found regularly. Food-in-tubes, so popular in Europe, are becoming increasingly popular in this country. Vending machines offer another great market for tubed products.

Collapsible tubes are economical, both to processor and consumer. So consumers would do well to examine price and volume claims *closely* before they select a package. Tubes are especially economical because they surrender every bit of their contents.

Safe, Handy, Long-Lived

It has been demonstrated that products in collapsible metal tubes stay fresh for years after being packaged. There is no likelihood of vapor transmission through the walls of tubes nor any change in the taste or color of the products and there is no chance of mixing with unwanted additives.

Moreover collapsible tubes are handy, come in any desired size, can be put down anywhere and do not require special storage space. No matter how a tube is held —although it should be squeezed from the bottom—it dispenses the amount desired at the slightest pressure.

Children as well as adults have been using unbreakable metal tubes for years, with no hint of danger. Tubes can be put down on surfaces of any shape and dropping one will not hurt it or its contents.

Convenience

As collapsible tubes fold up as they are used, they take less storage space, and tell how much of the product remains. They are big enough for family sized quantities, or small enough for one, protected portion.

The Collapsible Tube Manufacturers Council is confident that fold-up metal tubes will remain the popular convenience, economy and safety package for a long time to come.

Pension Plans

A vast increase in pension plans in the drug, cosmetic and chemical fields in the last fifteen years is noted in the results of a survey completed by the Drug, Chemical and Allied Trades Section of the New York Board of Trade. Of 210 companies reporting, 59 firms have instituted their pension plans for employees since 1953.

Fifty-seven per cent of the plans reviewed require no contribution on the part of the employee, with 86% of the plans being offered on an equal basis to salaried and hourly workers. Although all of the 210 companies did not indicate their retirement requirements, of the 111 organizations that did respond, an overwhelming 85% do not require retirement before age 65. In plans where no age limit is set, almost 70% let management decide.

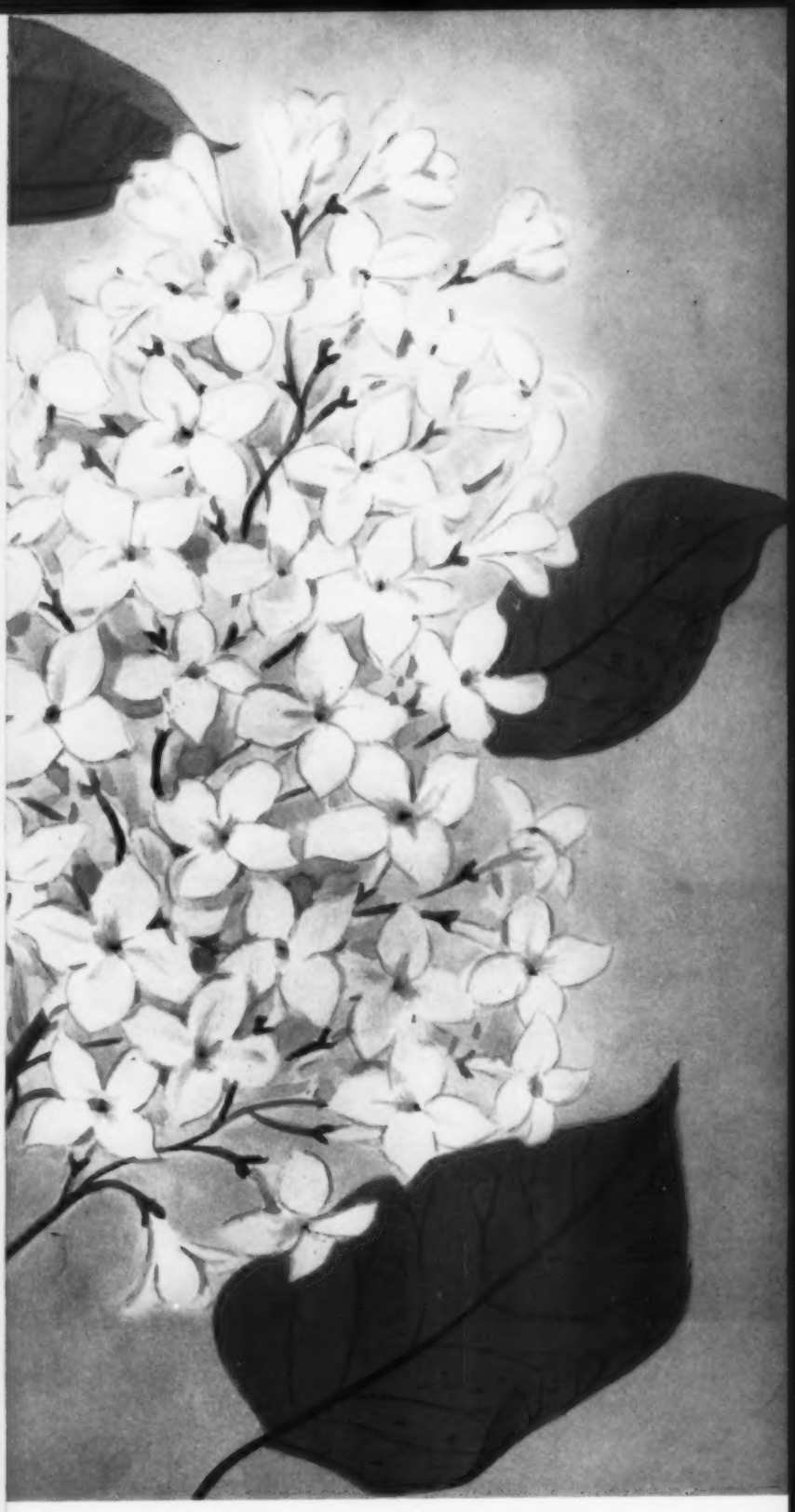
Seventy-one per cent of 210 programs provide vested rights for the employee, 20 of them immediately upon inclusion in the program and the greater majority within five to 10 years of participation. Death benefits are provided by 55% of the annuity plans, with 36% giving insurance protection during the lifetime of the worker. Only 30% of the pensions are geared to social security benefits, with one-third subject to amendment as federal old age benefits are increased.

Research Insurance

At President Eisenhower's conference on technical and distribution research for the benefit of small business last Autumn Dr. Johan Bjorksten, president of the research laboratories that bear his name, pointed out that the only way to bring about serious participation of small business in the overall research effort is to distribute the risk by means of a federal research insurance organization. He pointed out that it is impossible to know in advance in research work which project will succeed and when, if at all. The risk is therefore too great for individual small businesses while in large concerns with numerous research projects the risk averages out. A Research Insurance Authority which would reimburse small firms for about two thirds of the cost of unsuccessful research projects in return for say one third of the profits from successful projects might become self supporting, and would enable small business to undertake research with some justification. At the time he pointed out that he does not advocate such a federal undertaking but merely stated the fact that the only way to make possible serious participation of individual small business in research is to provide a way to insure the risk.

White Lilac
SUPREME

Here's a claim . . . and a challenge that you'll not duplicate this exquisite, low-cost floral in quality, fidelity or tenacity of fragrance, either at *our* price or at *any* price! Just tell us you're interested in a fine lilac—that you'll study it carefully in comparison with other offerings—and we'll gladly send you an adequate sample of our WHITE LILAC SUPREME to make your tests. This is truly a fragrance of incomparable beauty for use in extracts, toilet waters and colognes. And its price is *under $12.00 per lb.!*



FRITZSCHE

BROTHERS, INC.

76 NINTH AVENUE, NEW YORK 11, N.Y.

BRANCH OFFICES AND *STOCKS: ATLANTA, GA., BOSTON, MASS., *CHICAGO, ILL., CINCINNATI, OHIO, GREENSBORO, N. C., *LOS ANGELES, CAL., PHILADELPHIA, PA., SAN FRANCISCO, CAL., ST LOUIS, MO., MONTREAL AND *TORONTO, CANADA; *MEXICO, D.F., AND *BUENOS AIRES, ARGENTINA. FACTORIES: CLIFTON, N. J., AND BUENOS AIRES, ARGENTINA.

EST 1871

FRITZSCHE
BROTHERS, INC.

76 NINTH AVENUE, NEW YORK 11, N.Y.

*BRANCH OFFICES AND *STOCKS: ATLANTA, GA., BOSTON, MASS., *CHICAGO, ILL., CINCINNATI, OHIO, GREENSBORO, N. C., *LOS ANGELES, CAL., PHILADELPHIA, PA., SAN FRANCISCO, CAL., ST. LOUIS, MO., MONTREAL AND *TORONTO, CANADA; *MEXICO, D. F., AND *BUENOS AIRES, ARGENTINA. FACTORIES: CLIFTON, N. J., AND BUENOS AIRES, ARGENTINA.*

EST. 1871

A FIRST NAME
IN FLAVORS
... SINCE 1871

You name the flavor . . . we'll make it to your order! But better still, let *us* suggest the flavor for your product—especially for your pharmaceutical product, because in this field, particularly, one has to choose and use flavorings with utmost skill and discrimination. From long experience, we have gained the solid knowledge that enables us to lend your product greater palatability and acceptability through the use of *proven, appropriate, compatible* flavors.

FRITZSCHE BROTHERS, INC., 76 NINTH AVENUE, NEW YORK 11, N.Y.

BRANCH OFFICES AND *STOCKS: ATLANTA, GA., BOSTON, MASS., *CHICAGO, ILL., CINCINNATI, OHIO, GREENSBORO, N.C., *LOS ANGELES, CAL., PHILADELPHIA, PA., SAN FRANCISCO, CAL., ST. LOUIS, MO., MONTREAL AND *TORONTO, CANADA; *MEXICO, D. F. AND *BUENOS AIRES, ARGENTINA. FACTORIES: CLIFTON, N. J. AND BUENOS AIRES, ARGENTINA.

News and Events

Record Sales Made by Lever Bros Co. in 1957—Net Up

Record sales of $345,600,000 were made by the Lever Bros Co. in 1957 and the net profit was $5,900,000. In a report to its 7,843 employes President W. H. Burkhart disclosed that the company is readying a number of new products for market testing. He also stated "We must recognize that profits were inadequate for a company of our size. We haven't arrived but we are on the way." Through the aquisition of the All line of detergents the company achieved leadership in the low-suds field.

Last year Lever paid $284,700,000 for raw materials and other supplies, advertising, promotion and other services and $42,500,000 in wages and salaries. It also contributed $680,691 to the employes profit sharing plan.

Total assets were set at $125,000,000 of which $66,000,000 was in plant and equipment; $48,000,000 in working funds and $11,000,000 in patents, trade marks, good will and other assets.

Comparing the ratio of profits of its chief competitors in 1957 it appears that the domestic profit ratio for Procter & Gamble Co. with a domestic volume of around $900,000,000 works out to about 5.5%; for Colgate-Palmolive Co. whose $268,715,000 in domestic sales put it in the No. 3 spot, the profit ratio was better than 2.5% of sales.

The Borden Co. Buys Marcelle Cosmetics, Inc. of Chicago

The Borden Co. New York, probably the largest distributor of milk and milk products in the United States which does business in many states has purchased Marcelle Cosmetics Inc. of Chicago. The Borden Co. operates a number of divisions including a chemical division, a Special Products division, a food products subsidiary company and a division for prescription products but this is its first venture into the cosmetic field.

Marcelle Cosmetics Inc. was founded by Philip L. Blazer who served as president and general sales manager. It did a substantial business chiefly in the mid west and the company is an active member of the Toilet Goods Assn. Plans of the new owners have not been announced.

Sales of Chesebrough-Pond's $55.496,385 in 1957

A record sales volume was made by Chesebrough-Pond's Inc. in 1957 according to its latest financial report. Total sales were $55,496,385 as compared with $51,504,158 in 1956. The net income for the year was $3,111,692. The chairman of the board Arthur B. Richardson and the president Jerome A. Strake in a joint letter to stockholders said that the company's most important domestic accomplishment in 1957 was the assumption of full distribution on Vaseline brand products, a function which had been handled for 84 years by the Colgate-Palmolive Co. Two new products were marketed nationally during the year: Valcream and Pond's Angel Touch. Pond's Clean and Sweet shampoo was also introduced and there were packaging changes in Pond's Angel Skin. Foreign sales were reported 11% ahead of the previous year with profits on the uptrend.

Hazel Bishop Inc. Reports Net Loss of $996,048

On sales of $10,006,462 in 1957 Hazel Bishop Inc. reported a net loss for the fiscal year of 1957 ended October 31 of $996,048, marking the third year in a row that the company operated at a loss. Sales in 1955 were $11,462,020 and the net loss was $460,177. Sales in 1956 were $10,270,994 and the net loss was $610,259. In a report to stockholders Raymond Spector, president, stated that sales for the first quarter of the present fiscal year are ahead of last year and that operations are on a profitable basis. Mr. Spector owns 62% of the stock of Hazel Bishop Inc. A letter accompanying the report, signed by Bert Schwartz, vice president of manufacturing states: "Please note that our financial statements do not include our principal asset —good will. As a result of our $27,000,000 advertising expenditures four out of ten U. S. women now use at least one Hazel Bishop cosmetic. This is a very valuable franchise which is worth millions." The annual report lists total current assets of $1,962,455 and liabilities of $1,955,447 of which $1,547,010 is for accounts payable.

Chesebrough-Ponds Declines to Purchase Hazel Bishop Inc.

Chesebrough-Ponds Inc. has dropped all activity in connection with purchasing Hazel Bishop Inc. One of the top officials of Chesebrough-Pond's reported that his company had entered into exploratory discussions with Hazel Bishop Inc. when it was learned that the company was for sale but that Chesebrough-Pond's had terminated negotiations.

BRECK HOST TO SHIRLEY TEMPLE

Edward J. Breck, President of John H. Breck, Inc., and Mrs. Breck with Shirley Temple, star of Breck-sponsored Shirley Temple's Storybook series of TV spectaculars at a recent reception held for the famous actress in Hollywood.

Edward H. Little Predicts Good Business Year

Edward H. Little, chairman of the board and president of the Colgate-Palmolive Co. expects 1958 to be another good year for the company. "Our products," Mr. Little stated, "are basic to good health and good grooming. No temporary economic set-back will force people to curtail their cleanliness habits.

Edward H. Little

Colgate-Palmolive will maintain its advertising pressure in the most aggressive manner possible."

Open Forum on Growth and Cure of Vanilla Beans April 17

An open forum will be held to discuss an agricultural research program on the growth and cure of vanilla beans to be started when funds from the present assessment on vanilla bean purchases of the F.E.M.A. members become available. The meeting will be held in Room 502 of the Engineering Societies Bldg., 29 W. 39th St., New York. The speakers will include Dr. Richard Hall, Rufino Cagigal, Robert Rosenbaum and Chester Smeltzer. The affair was arranged by Dr. Arthur S. Wendt, chairman of the Scientific Projects Committee of the Flavoring Extract Manufacturers Assn.

Helena Rubinstein Offers Cream With Placenta in the Formula

Tree of Life cream has been launched by Helen Rubinstein Inc. in which placene is the chief principle employed. The product is a placenta extract "from nature's storehouse of nutrients for the unborn baby" according to announcements by the company.

Dr. Robert Swain Honored by Pharmacy Alumni of Columbia

Dr. Robert L. Swain, editor of Drug Topics and Dr. Rudolph Hauck of the Knoll Corp. each received the Henry Hurd Rusby award of the Alumni Assn. of the Columbia College of Pharmacy at a dinner March 30 in the Waldorf Astoria hotel, New York. The award was given to Dr. Swain for his service in helping to develop the Bobst-Columbia Plan for Pharmaceutical Education. Over 600 attended the dinner.

Ladies Night of New York Chapter of S.C.C. Proved Very Popular

The annual Ladies Night of the New York Chapter of the Society of Cosmetic Chemists which was held in the Hotel New Yorker on the evening of April 2 proved to be a very popular and a most interesting affair. Over 300 were present. Following the cocktail reception and the banquet Miss Marie Fromow of Good Housekeeping magazine gave a demonstration of effective make-up. Much credit is due to Robert Warfield and George Kachagian for the complete success of the affair. Chairman Harry Isacoff presided at the banquet and greeted guests as they arrived.

Harry Isacoff

Dr. Ernest Guenther Lectures on Essential Oils of Africa

The new colored motion picture "Essential Oils of Africa" made from photographs taken by Dr. Ernest Guenther, vice president of Fritzsche Brothers Inc. on his recent six months trip through the dark continent were shown for the first time at the Johnny Victor theatre New York March 27. A running commentary on the sound track of the movie by Dr. Guenther accompanied by an appropriate musical background added to the interest of the exceedingly interesting and informative movie. John L. Cassullo, president of Fritzsche Brothers Inc. and Dr. Guenther each spoke briefly. A question and answer period followed.

Fritzsche Brothers is inaugurating a long range program through which the film and subsequent films now being planned will be made freely available to institutional, association and educational groups as well as for TV showings.

The Toni Co. Obtains Fair Trade Injunctions

The Toni Co. has obtained injunctions in New York against Barney's 38th St. Corp., Canal Cut Rate, Inc., and Spur Sales Co., permanently enjoining the sale of Toni products at less than the established fair trade minimum prices. Toni also announced that preliminary injunctions in New York have been obtained against A. Rosenblum, Inc., and 122 Chamber Street, Inc.

Scovill Creates Cosmetic Container Division

Scovill Manufacturing Co. announces the creation of a new division of the company, to be known as the Cosmetic Container Division. Chester A. Burnett is appointed General Manager of the new division. As such, he will have a complete responsibility for the administration and operation of the division and will report directly to Mark L. Sperry, II, executive vice president and general manager of Scovill.

Chester A. Burnett

Mr. Burnett joined Scovill in 1935. After completing the advanced training course in 1936, he was appointed Production Supervisor in the manufacturing departments. He also served as Production Manager of Contract Manufacturing, General Superintendent of the Zipper Division, and General Production Manager of all of the Manufacturing Departments. In 1956 Mr. Burnett was appointed Works Manager of the General Manufacturing Division, which position he held until now.

Bristol-Myers Co. Purchasing Dept. in Hillside, N. J.

The operations of the purchasing dept. of the Bristol-Myers Products Div. are now being conducted from the new location at 225 Long Ave., Hillside, N. J. The telephone number is WAverly 3-5000.

Ostrowski Returns from Inspection of Foreign Plants

Theodore Ostrowski, chief chemist of Germaine Monteil, New York has returned from a five weeks trip to Europe most of which time was spent at the plants of the company in Paris and in Rome. The trip was made by airplane.

Carl Edwards Joins Fritzsche Quarter Century Club

Carl W. Edwards of the Chicago office of Fritzsche Brothers Inc. celebrated his 25th anniversary with the company at a private party given by the company in Chicago. He was presented with a government bond by the company and an engrossed scroll recognizing his membership in the club. There are now 72 members of the club.

British S.C.C. Holds Annual Dinner-Dance

The Annual Dinner-Dance of the Society was held at the Cafe Royal on February 7th, and was acclaimed the best ever by over 200 members and guests. The toast of the Society was proposed by J. H. Skellon, T.D., M.Sc., Ph.D., F.R.I.C., Head of the Department of Chemistry and Biology at the new Brunel College of Technology at Acton. Dr. Skellon, who has played a most important part in the development and conduct of the courses in Cosmetic Chemistry sponsored by the Society, spoke of his decision to promote the third year Diploma Course to a position of honour in the new Brunel College which provides for advanced studies in the Sciences. The decision had received the blessing and approval of higher authority and the way was now open to continued progress, perhaps, he hoped, with the endowment of a Research Fellowship in Cosmetic Chemistry. Post graduate training and research were, in Dr. Skellon's opinion, vital to the prosperity of the Industry. The Diploma Course he considered to provide a very high standard of training for those who were desirous of entering or advancing in the Industry.

The President, Jack Pickthall, F.R.I.C., responding to the toast, thanked Dr. Skellon for the great interest he had always shown in the cosmetic courses sponsored by the Society and said that the evening's programme was shaped to emphasise the Society's appreciation of that interest. All the speakers were in some way connected with the educational courses.

British S.C.C. Holds 5th Scientific Meeting

The Fifth Scientific Meeting of the Society was held at the Royal Society of Arts, John Adam Street, W.C.2., on Monday, 17th February.

The President, J. Pickthall, F.R.I.C., introduced the speaker of the evening, W. C. Botfield, chief perfumer, W. J. Bush Ltd. to discuss "The Art of the Perfumer".

Mr. Botfield described the many different aspects of perfumery art, as applied, for example to handkerchief perfumes and the soaps and the range of toilet and cosmetic products, each demanding a special study.

Mr. Botfield gave an interesting outline of the art of blending as practised by the perfumer from a considerable range of perfumery materials, and made a strong plea for the judicious use of specialties, the creations of skilled and experienced perfumers. Such achievements as these specialties should be recognized by perfumers generally and made use of as valuable, painstakingly prepared and thoroughly reliable materials ready to hand and of established stability.

Another plea of some importance made by Mr. Botfield was for the more general use of some of the essential oils which have been rather neglected.

BRITISH S.C.C. DINNER-DANCE

The President and Mrs. Pickthall receive Dr. and Mrs. Skellon.

Philadelphia College Receives Cholesterol Research Grant

American Cholesterol Products, Inc., has made a grant to the Philadelphia College of Pharmacy and Science so that members of the faculty of that College may this year pursue basic and applied research in the field of acetylated lanolin and lanolin alcohols and their function as emollients. The various projects under this grant will be carried out under the direction of Associate Dean Linwood F. Tice, and Dr. Martin Barr, Associate Professor in Pharmacy at the College. The grant to the College was announced by Lester I. Conrad.

June Issue Will Feature Emulsions

The most recent developments revealed by research in emulsion technology, the refinements made in technic and the numerous emulsifiers created to meet special conditions will be clearly and tersely explained and described by recognized authorities in the forthcoming June issue. The editorial section will tell the reader *how* to produce the most satisfactory emulsions. The advertising pages will tell *with what*.

DR. LAUFFER CIBS SPEAKER

At the CIBS Luncheon Meeting on March 13, Dr. Paul G. I. Lauffer, Director of Research and Development for Northam Warren Corp. spoke on "What is cosmetic chemistry." Shown after the meeting are (l to r) Shockley C. Gamage, Magnus, Mabee & Reynard, Inc., CIBS' Publicity Chairman; Dr. Paul Lauffer; William Jaeger, Park & Tilford, CIBS' President, and Robert Williams, Givaudan-Delawanna, Inc., CIBS' Program Chairman.

Kass Lectures on Cosmetic Technology at Chicago University

The Downtown Center of the University of Chicago in co-operation with the Chicago Chapter of the Society of Cosmetic Chemists is offering a series of 12 evening lectures on Cosmetic Technology. The lecture series is under the direction of Gus S. Kass, technical

Gus S. Kass

director of Lanolin Plus, Inc., Chicago.

The course is designed for persons employed in the cosmetic and allied industries who want to increase their knowledge of some of the technical aspects of product development and evaluation. Participants can expect to be better equipped to handle their particular work areas in the cosmetic field, or to expand their activity as a result of their greater technical knowledge.

Mr. Kass, as well as guest lecturers from the cosmetic industry and medical profession, will discuss the chemical composition of various cosmetic products, dermatological effects and problems, current trends and developments and special problems of cosmetic testing and evaluation.

Don't Sweat Salesmen to Cure Recession—C. H. Brower

The best way to get consumers back in a buying mood is for advertising to awaken their interest and for installment credit to make their purchases easier Charles H. Brower, president of Batten, Barton, Durstine & Osborn stated in a talk before the National Installment Credit Conference sponsored by the American Bankers Assn. The theory of 'sweating salesmen' as a cure for recession is obsolete he stated.

How Sales of Colgate-Palmolive are Divided in the World

Of the $238,195,000 in sales of Colgate-Palmolive Co. in 1957 through international operations $100,273,000 came from the western hemisphere; $109,105,000 from Great Britain and continental Europe and $28,817, from the Far East and South Africa. Consolidated world wide sales were $509,910,000 of which $268,715,000 were in domestic sales. Consolidated net income was $15,477,000. Foreign subsidiaries earnings set a new record of $12,984,000 compared with $10,580,000 in 1956.

Ipana Toothpaste in Aerosols Launched by Bristol-Myers Co.

Bristol-Myers Co. has joined the ranks of toothpaste manufacturers packing some of their dentifrices in aerosol containers. It recently introduced a 7-ounce container of Ipana Touch-n-Brush toothpaste which sells for 98 cents retail. National distribution is expected by the end of May.

Film Showing How Young Adults Live Shown by Redbook Magazine

A colored motion picture film designed to depict the new way of life of today's young families has been made by Redbook magazine. It is a blend of black and white and color photography and utilizes a narrator, a special musical score and a combination of motion and still photography. It includes scenes in such young adult communities as Princeton, N. J., Levittown, Pa., Hillsdale Shopping Center, San Mateo, Calif. and many others. The film is 19½ minutes in length. It is being widely shown and demonstrates in a graphic manner how a mass magazine like Redbook serves young adults.

W. J. Bush & Co. Inc. Acquired by R. D. Webb & Co. Inc.

R. D. Webb & Co. Inc., a newly formed corporation has succeeded W. J. Bush & Co. Inc. the American company of W. J. Bush & Co. Ltd. of London, England.

The addresses of the main office at 137 Boston Post Road, Cos Cob, Conn.; the laboratories and plant in Linden, N. J.; the Pacific coast branch at 3525 East Olympic Blvd., Los Angeles, Calif.; and the Chicago office at 605 W. Washington Blvd. will remain the same.

R. D. Webb is the son of the late Richard Righton Webb who for many years operated the American company. R. D. Webb is an alumnus of Duke University and a few years ago with his mother, was presented to the monarch of the British empire. Since the death of his father he has directed the affairs of the American company.

Mennen Stands By Fair Trade

The Mennen Co., despite the actions of General Electric and Sunbeam, formerly two of the strongest proponents of Fair Trade, intends to continue to fight for the principles of Fair Trade and vigorously enforce compliance with its Fair Trade program.

The company pointed out that it has just obtained a permanent injunction against Modell's Shoppers World of Bergen County, Inc. and Starr Associates, Inc. in New Jersey, restraining those companies from advertising or selling Mennen products in violation of its Fair Trade policy. Mennen also has similar actions pending in California, Rhode Island and Massachusetts.

Program for S.C.C. Meeting June 4 in New York

The Society of Cosmetic Chemists will hold its semi-annual meeting, Wednesday, June 4, at the Hotel Commodore, New York City. The following papers will be presented at this meeting:

"Percutaneous Absorption of Vitamin A" Dr. Albert E. Sobel, Jewish Hospital

"Effect of Metabolite Analogs on the Formation of Tissue Components" Dr. H. George Mandel, Geo. Washington University

"The Formulation of Detergent Bars" John McCutcheon

"The Use of Infra Red Spectroscopy in Studying the Composition of Essential Oils" Dr. C. L. Teitelbaum, Battelle Memorial Institute

"Skin Problems of The Older Woman" Dr. Alice E. Palmer, Grace Hospital, Detroit

"The Role of Ultraviolet Absorbers in Cosmetics" Dr. F. E. Woodward, Antara Chemicals Division

"Nitrogen as Propellent in Pressure Packaging" H. R. Shepherd, Aerosol Techniques, Inc.

The highlight of this meeting will be the presentation of the Special Award to Prof. William Montagna, Arnold Biological Laboratory, Brown University, Providence, R. I. Prof. Montagna will be eulogized by Dr. Albert M. Kligman, Dept. of Dermatology, Hospital of the University of Pennsylvania, Philadelphia, Pa.

N. V. Sluys Boechout Establishes Paris Company

N. V. Sluys Boechout, having already associated companies in the United States and in Holland, has established a new company in Paris under the name of Sluys France s.a.r.l. The new company has its offices on 98, Boulevard de Sebastopol, Paris 3e. Manager of the new company is Mr. Diot.

New York and Chicago Lead in Number of Dandruff Sufferers

According to a 50-city survey by the Curtis Dandruff Treatment Council, New York and Chicago lead the country in dandruff sufferers with as many as 84% of their residents afflicted. The Council's dandruff count has provoked much head scratching among manufacturers of dandruff remedies.

F.E.M.A. To Hold Convention in Chicago

The 49th Annual Convention of the Flavoring Extract Manufacturers Assn. will be held May 18th through 21 at the Edgewater Beach Hotel in Chicago. At this meeting members will be fully posted on the Vanilla Research Program, and have the opportunity to hear and speak with some of the scientists from Boyce Thompson Institute who have developed these new techniques for Vanilla analysis.

Industrial Materials Packaging Conference

The third annual Industrial Materials and Packaging Conference was held April 4 and 5 at the University of California, Berkeley. The keynote address was made by Raymond C. Grassi, Associate Professor of Industrial Engineering. Of particular interest was the topic, Latest Developments in Flexible Packaging Materials.

Owens-Illinois New Products At National Packaging Exposition

New Products of Owens-Illinois Glass Co. will be shown publicly for the first time at the company's exhibit at the 27th annual National Packaging Exposition in the New York Coliseum.

D&O Installs Food Aerosol Filling Equipment

Dodge & Olcott, Inc. has established a special section of its aerosol testing laboratory for experimentation with pressure filling food products requiring flavoring compounds. At the present time there are three gases which account for almost all

of the food industry aerosols because of their inertness. These are nitrogen, nitrous oxide, carbon dioxide and combinations of such gases. In the photo, an operator in the D&O aerosol testing laboratory fills a food aerosol container with nitrous oxide and vibrator.

SHULTON WELCOMES GERMAN STUDY GROUP

Shulton Inc. was among the first companies in the U.S. to play host to the nine members of a German Study Group, sent to America under the auspices of the Government of West Germany, and sponsored by our State Dept.

Objectives of the visit were to study the functions and practices of management in medium-sized business enterprises.

George L. Schultz, president of Shulton, took time out to sketch the firm's management organization and answer delegates' questions. Victor Sommer, Shulton plant manager, conducted the group through the Clifton, N.J. plant, showing them the various operations involved in the manufacture of Old Spice for men products.

Forthcoming National Sales Aids Show

The 5th annual National Sales Aids Show will be held at the Shelton Hotel, New York on June 10 thru 12. At previous shows exhibitors have presented the newest in visual aids, displays, premiums, advertising specialties, graphic arts, sales presentations, training methods, direct mail, lettering, incentives, replicas, signs, packaging and other allied services of interest to sales directors, sales promotion managers, merchandising and display directors, advertising managers and other executive buyers.

George H. Buchi Receives Fritzsche Award

Prof. George H. Buchi of the Massachusetts Institute of Technology, an authority on perfume chemistry, received the $1,000 Fritzsche Award in San Francisco April 14, at the 133rd national meeting of the American Chemical Society. Dr. Buchi will give his award address on "The Structure and Syntheses of Some Natural Perfumes" before the Society's Division of Organic Chemistry on April 17.

Procedures Demonstration at Boyce Thompson Institute

A demonstration of chemical procedures for determining the purity of vanilla extract was held at the Boyce Thompson Institute on March 20. Data concerning the chrome-photography method developed out of the three year study, has been forwarded to the Food and Drug Administration for examination. Technical representatives of member firms of the Flavoring Extract Manufacturers Assn. attended the demonstration.

KOHNSTAMM SALES REPRESENTATIVES MEET

H. Kohnstamm & Co., Inc. held the annual meeting of their Eastern and West Coast sales representatives at the Governor Clinton Hotel, New York, Feb. 20, 21 and 22. New products were introduced and their uses discussed by the Company's color and flavor technical staff. Seated from l. to r.: E. M. Moss, Louis J. Woolf, Chairman of the Board; Paul Kohnstamm, President; Arthur D. Vogel, V.P.; Dr. Samuel Zuckerman, V.P.; Dr. David Jorysch, Asst. V.P. Front row, standing are from l. to r.: William J. Lane, Howard Zimmer, V. N. Tinnes, Andrew J. Torter, Si Slovitt, Michael Dunne, William E. Olson, Joseph P. Torter, Louis Agre, Carroll D. Biddison, Jesse White, Herb Johnson. Back row from l. to r.: Robert S. Woolf, Dr. Robert Cooney, Asst. V.P.; Jim McNellis, J. A. Holderreid, William J. Kelley, Harold Anderson, G. H. Sloane.

Expansion Planned in South America

Jacques d'Aigremont, president of Roure-Dupont, Inc. and Floramatic, Inc., has just returned to New York after visiting their principal clients and representatives in South America. Contrary to the conservative attitude evidenced in this country due to the economic situation, manufacturers in those countries are planning expansion. This is normal phenomena where inflationary forces are still in the ascendency. The primary negative factor is the increasing difficulty of obtaining dollar exchange in most countries.

Joseph C. Lynch Addresses Essential Oil Credit Meeting

The Essential Oil Assn. Credit Bureau met at the Gramercy Park Hotel March 27. Joseph C. Lynch was the speaker, discussing present day conditions as pertaining to credit.

Wolff Book Claims Women Have Changed

Today's new American woman is as different from the American woman of 10 years ago as a "flapper" of the 1920's from a Victorian dowager, and strikingly new attitudes toward beauty and cosmetics are outstanding evidence of the fact, according to Janet Wolff, author of the new book "What Makes Women Buy," just published by McGraw-Hill.

"Women's new freedom leads them to ask for more from marriage than security. They now look for the pleasures of companionship, mutual interests, and parenthood as well. The products and services which can help women in achieving these marriage goals will have big appeal and play an important part in their lives."

Mrs. Wolff finds the sellers of beauty products and influencers of today's women in the area of personal appearance can greatly increase their effectiveness by emphasizing and connecting their story to this area.

Cosmetics and beauty, of course, are perfectly suited for a promotion built around bolstering women's self-confidence and assurance, Mrs. Wolff points out, noting that:

"Today's women desire to be perfect and to have things that are perfect, but achieving this perfection must seem effortless."

(To each his own. The analysis of vanity.)

Leeben Color & Chemical Co. Appoints Distributors

The Leeben Color & Chemical Co., Inc. of New York City, has announced the appointment of representatives in the following areas: Louisiana, E. W. Ortenbach; Georgia, Charles E. Baker, Inc.; Montreal and Toronto, The Dalex Co. These representatives will service their territories with certified colors for the cosmetic and flavor trades.

Small Business to be Featured at May 14-16 Meeting

Sen. E. J. Thye former chairman of the Senate Small Business Committee will sketch the legislative outlook for small business at the May 14-16 forum of the American Management Assn. in the Hotel Biltmore, New York.

Special problems of small business organizations will be covered.

OBITUARY

KENNETH BROWN

Kenneth Brown who retired as vice president of the Atlas Powder Co. and who did notable work with sorbitol, died March 18 at the age of 61 years.

WILLIAM F. MEYER

William F. Meyer, past president of the Flavoring Extract Manufacturers Assn., passed away Friday, March 28. He had been in poor health for some time, having suffered a stroke in July of 1955, from which he partially recovered.

Born in Quincy, Ill., Mr. Meyer, at the age of 16, became situated in Lincoln, Nebraska, where he entered the field of banking. After a few years, he left for Denver, Colo., where he was a western representative of a St. Louis company. In 1910, he went to St. Louis and engaged in the wholesale grocery business. Shortly thereafter, in 1911, he, with a small group of relatives and friends, purchased the Warner-Jenkinson Mfg. Co. Mr. Meyer's first move was to engage a chemist, and he was fortunate in securing Dr. Harold Johnson, who with Mr. Meyer, was responsible in building the quality and reputation of the firm.

During World War I, the company entered the certified color field, and since that time, certified colors and flavoring extracts have been their principal products. Mr. Meyer was President of Warner-Jenkinson Mfg. Co. from 1911 to 1952, when he became Chairman of the Board.

Mr. Meyer was one of the most devoted members of the Flavoring Extract Manufacturers Assn.

At the 4th annual Men's Day Luncheon of Cosmetic Career Women, April 1 at the Empire Room, Waldorf-Astoria Hotel, New York City, the dais guests represented the "Bosses" of the members of the executive committee. Left to right standing: Al Raymond, Philip Gigante, Joseph Morningstar, Arthur A. J. Weglein, Morris G. Cohen, Charles Cavalli. Seated: S. L. Mayham, Charles P. Lipscomb, Jr., Kay Fitzpatrick, Richard Salomon, Frazer V. Sinclair.

Evaluation Methods Discussed at S.C.C.

The various modalities used in testing topical applications were reviewed and discussed by Dr. Donald J. Birmingham of the United States Public Health Service, guest speaker at the regular monthly meeting of the New York Chapter of the Society of Cosmetic Chemists March 5. The meeting, best-attended of the year, was presided over by Harry Isacoff, chapter chairman. Dr. John Longfellow, program chairman, introduced the speaker and led the discussion which followed.

Dr. Birmingham, who is Medical Director and Chief Dermatologist of the United States Public Health Service, Occupational Health Field Headquarters in Cincinnati, Ohio, reviewed the program of laboratory tests and field trials carried out by him and Dr. Vernon B. Perone to evaluate fifteen waterless hand cleaners for the Air Force. He used this work (published January 1956 as WADC Technical Report 55-467) to illustrate how such an evaluation program can be designed and suitable test procedure developed to provide basic data that can serve as a reasonable standard for acceptance of a topical product.

The laboratory studies included classification of the products into basic types according to the principal functional ingredients, the determination of significant physical and chemical characteristics, evaluation of efficiency under standard test conditions of use and a study of physiological action on the skin. Dr. Birmingham emphasized the importance of conducting adequate field usage trials "because the best laboratory performances by a product are only as good as the results of actual usage trials." Field studies supply valuable subjective data including personal preference, and are essential in determining mildness and safety.

In the discussion period that followed, Dr. Birmingham answered a number of questions from the audience and gave some additional details on his testing procedures.

Society of Cosmetic Chemists Founds Los Angeles Chapter

The founding meeting of the Los Angeles Chapter of the Society of Cosmetic Chemists was held in the Roger Young Auditorium in Los Angeles March 18, 1958. Dr. Paul Jewel of Max Factor & Co. was elected chairman pro-tem., and Miss Betsy Bevins, secretary pro-tem. Harry Mace, Karl Westerberg and David Lozano were elected to act as the nominating committee.

The inaugural meeting of the Los Angeles Chapter will be held during the week of April 21. At that time the membership will elect its officers and directors.

Maison deNavarre, first president and founder of the Society of Cosmetic Chemists will present the first technical paper at the inaugural meeting of the Los Angeles Chapter. His paper is entitled, "Deteriorating Effect of Non-Ionics on Preservatives."

Camco Announces Acquisition of Tite-Cap Machine Co.

Canning Machinery Co. announces the acquisition of the Tite-Cap Machine Co., Inc. of New York City.

Felton Announces 1958 Price List

Felton Chemical Co. has announced the availability of a new aromatics price list. It contains the complete Felton inventory of perfume bases for toiletries, cosmetics, men's toiletries, aerosol toiletries and sun screening agents, and categorizes aromatic chemicals, natural, terpeneless and artificial essential oils, balsams, resins, tinctures and perfume specialties.

Ar-Ex Products Co. Announces Ad Campaign

Julius B. Kahn, president of the Ar-Ex Products Co., announces the biggest advertising campaign ever launched by any manufacturer of Hypo-Allergenic cosmetics. The theme of the campaign will be to tell the one woman in six with sensitive skin, that she can still have lovely complexion and fashionable appearance through the use of Hypo-Allergenic cosmetics.

Gerberding of Dragoco to Visit the United States

Horst Geberding, co-owner of Dragoco, will be in the United States from the middle of April until the end of May. Mr. Geberding, a renowned perfumer, who is head of the perfume laboratories in Holzminden, will make his headquarters at the New York offices of Dragoco, Inc. He will be available, as time permits, for consultation on special perfumery problems.

COSMETIC CHEMISTS' LOS ANGELES CHAPTER

Robert A. Kramer, Secretary of the Society of Cosmetic Chemists; Dr. Paul Jewel, Chairman Pro-Tem; Miss Betsy Bevins, Secretary Pro-Tem; and George Kolar, former President of the Society of Cosmetic Chemists, at the Founding Dinner of the Los Angeles Chapter, March 18.

General view of group at Founding Dinner

Essential Oil Assn. of India Holds Second Annual Convention

Sri O. Hanumantha Rao welcomed the chief Guest Sri B. Vaikunta Baliga, Minister for Legal Affairs and Labour Govt. of Mysore, the members of the Assn. and the guests on behalf of the Reception Committee. He briefly outlined the aims and objects of the association which has brought the various interests of the essential oil industry viz, the Chemists, Technologists, Manufacturers, and the merchants on a common platform.

WELCOMING ADDRESS

Sri Baliga said that India had been reputed for its essential oils in the past and perfumery occupied an important place in the daily lives of the people. But after the advent of the synthetic substitutes, the essential oil industry had received a severe setback. After the country attained independence, the industry was making steady progress due to protection and encouragement by the Central Government, yet the industry has not attained the desirable magnitude and it was up to the manufacturers to take full advantage of the encouragement and develop the industry rapidly.

He urged that the manufacturing costs should be cut down and the quality maintained which alone would ensure foreign markets for Indian essential oils. Besides, they had also to exploit the home markets by making perfumes and essential oils cheaper.

PRESIDENTIAL ADDRESS

In his presidential speech, Dr. Dhingra expressed his grateful thanks to Sri B. Vaikunta Baliga, Minister for Legal Affairs and Labour Govt. of Mysore for having spared his valuable time to inaugurate the Meeting at great personal inconvenience.

Dr. Dhingra briefly defined the aims and objects of the Association and said that it had achieved considerable progress during the first year of its formation and had tried to bring together the various interests of the essential oil industry on a common platform. The first issue of the Journal "Indian Perfumer" has also been published.

India imports Natural and Synthetic essential oils and camphor besides aromatic chemicals to meet the country's demand. He further said that the recent restrictions imposed by the Government on the imports have affected the industry to some extent but the perfumers should take advantage of this unique opportunity and take up the production of various synthetic aromatic chemicals and essential oils. Cultivation of those essential oil bearing plants whose oils are imported from foreign countries should also be started forthwith to make India independent of foreign supplies.

He then gave a resume of the research work carried out on essential oils in various Laboratories, Universities and Research institutions and of the contribution made by the Indian standard Institution and the Directorate of Marketing & Inspection Govt. of India in respect of standardisation of essential oils and their gradings.

In the end he said that there was a great future for this industry in the country.

Better techniques and equipments for the production of essential oils of better quality at a lesser cost should be carried out. The preparation of aromatic Chemicals which form the basic ingredients of synthetic essential oils and perfumes should be taken up.

The following papers were then presented: Manufacture of Palm Rosa Oil from Cultivated Rosha Grass, by Raminder Singh; Synthesis of the Gross Structure of Carissone, by D. K. Banerjee and P. S. Halwe; Ring Expansion Studies with Carvomenthone, by T. M. Jacob and Sukh Dev; Examination of Dethymolized Ajowan Oil, by G. N. Gupta, K. P. Singh and S. N. Ghatak; Perbenzoic Acid Oxidation of Longiforene, by U. R. Nayak and Sukh Deo; Synthesis of 7-Methyl Cadalene, by K. L. Murty and Sukh Dev; Introduction of Some of the Important Exotic Aromatic Plants in Jammu and Kashmir, by K. L. Handa, I. C. Chopra and B. K. Abrol; Chemical Examination of the Essential Oil from Laurel Berries, by I. C. Nigam, D. R. Dhingra and G. N. Gupta; The Evolution of a "Rational Still" for Essential Oil Bearing Raw Materials, by N. N. Gokhale; Reduction of Citral, by Dr. V. M. Bhave; A Review of the Possibilities of Cultivation of Some of the Most Widely Used Essential Oil Bearing Plants in India, by Sri R. Maitra.

Toilet Goods Assn. Revises Standard for Magnesium Stearate

The Board of Standards of the Toilet Goods Assn. has had published a revised standard for Magnesium Stearate. The standard was originally issued Dec. 10, 1945, revised Sept. 17, 1953. The latest revision is dated Feb. 24, 1958.

French Fashion Magazines Available in U.S.

A catalogue listing French fashion, fashion accessories and hair styling magazines now available in the U.S. has been issued by Hachette, one of the largest distributors of French Periodicals. A copy may be obtained from European Publishers Representatives, Inc., 1475 Broadway, New York 36, N.Y.

Helene Curtis Industries, Inc. Launches Intensive Ad Campaign

Helene Curtis Industries, Inc., will spend $1 million in various media during the next three months in a special campaign on its Enden Dandruff Treatment Shampoo. This effort will be the heaviest in the product's history.

Carlis J. Stettin C.A.I. Speaker

The Chemical and Allied Industries Assn. met March 31 at the Detroit Leland Hotel. The speaker was Carlis J. Stettin, Port Director for the City of Detroit. His subject was "Port of Detroit —A Community and Business Partnership for Economic Improvement."

Girl With a Rose

The photo used with the headline of the article "The Mechanism of the Olfactory Stimulus, by R. W. Moncrieff, in the March issue of American Perfumer, was through the courtesy of Harriet Hubbard Ayer.

WE ARE PLEASED TO ANNOUNCE THAT

EFFECTIVE MARCH 31, 1958

R. D. WEBB & CO., INC.

BECAME SUCCESSORS TO
W. J. BUSH & CO., INC.

OUR ADDRESSES REMAIN THE SAME
GENERAL OFFICE
137 BOSTON POST ROAD, COS COB, CONN.

LABORATORIES AND PLANT
LINDEN, NEW JERSEY

BRANCH
3525 E. OLYMPIC B'LVD.
LOS ANGELES, CALIFORNIA

BRANCH
605 WEST WASH. B'LVD.
CHICAGO 6, ILLINOIS

CABLE ADDRESS: WEBORANGE, COS COB

Revised, enlarged Edition

HENLEY'S 20th CENTURY BOOK
of
FORMULAS, PROCESSES, TRADE SECRETS

Includes sections on Plastics and Photography. Manufacturers, Chemists and others call HENLEY'S the most valuable book of its kind. Nearly 10,000 formulas, processes, trade secrets. A wealth of practical guidance. A single formula may be worth 100 times the price of the book.
Over 900 pages, 8½" x 5½". Completely indexed, cloth binding. $5.25 postpaid. Order today from MOORE PUBLISHING CO., 48 West 38th St., New York 18, N.Y.

SPOTLIGHT News...

The evolution of packaging from an art into a science will be emphasized at the American Management Assn's annual packaging show and conference in the Hotel Statler New York May 26-28 and at the National Packaging Exposition in the New York Coliseum May 26-30.

BIMS 1958 golf tournaments will be held as follows: June 19, Baltusrol; July 22, Winged Foot Country Club; August 19, Nassau Country Club; and September 9, Wykagyl Country Club.

A new penetrating cleanser with enzymes which is claimed to achieve effective pore cleansing action has been launched by the DuBarry division of the Hudnut Sales Co. It retails for $1.35.

A million dollars will be spent in three months by Helene Curtis Industries, Chicago, Ill. to advertise Enden Dandruff Shampoo in all media.

The first aerosol topical antiseptic called Merthiolate has been launched by Rexall Drug Co.

The latest in imported cosmetics, toiletries and perfumes will be shown at the 1958 U. S. World Trade Fair which will be held in the New York Coliseum May 7-17 according to Charles Snitow, president of the exposition. It is claimed that the Fair will show under one roof the biggest collection of the foregoing product ever assembled at the same time.

The first waterless hand cleanser to be packed in a polyethylene tube for national distribution has been launched by the Mione Manufacturing Co., Collingdale, Pa.

Campana Co., Batavia, Ill. is to be operated as a subsidiary of Allied Laboratories, Kansas City, Mo. if the outstanding capital stock of Campana in Allied is approved. The acquisition is subject to agreement on a definitive contract. Under the plan involving the exchange of an undisclosed number of shares of stock in Allied Laboratories for all outstanding Campana stock, Willard Crull will continue as president of Campana and a stepped up program of new products will be undertaken by Campana, which manufactures Italian Balm, Solitair cake make up, Anjou perfumes and other cosmetics.

A 25 cent cash refund has been offered by the Lever Bros. Co. to consumers sending in box tops of Silver Dust, blue detergent. The product had a good sales record in 1957. The new promotion started this month.

Inside Pfizer, a seven page illustrated commentary written by the noted author John Gunther is a feature of the annual report of Chas. Pfizer & Co. to its stockholders. The 5,000 word article was based on visits to Pfizer plants and laboratories and talks with company officials. Total sales of the company went over two hundred million dollars for the first time. The 1957 figures were $207,-151,269 for sales with a net profit of $24,908,544. The report was also published in the New York Times of March 23.

A liquid deodorant using a built in sponge applicator, called Odo-ro-no Satin Sponge was introduced this month by the Northam Warren Corp., Stamford, Conn. It retails for 89¢.

The 15th Anniversary of the Centflor Manufacturing Co. New York, of which Dr. Arnold Beller is president, was completed last month.

1,089,838,656 metal collapsible tubes were shipped in 1957 by manufacturers of such tubes. This was 5.2% more than 1956 and was the third time the industry has produced over a billion units plus annually. Dentifrices accounted for a record number of 581,391,792 units. Tubes for cosmetics reached a new high of 95,568,192 in 1957. The figures are those of Collapsible Tube Manufacturers Council.

A shampoo designed to avoid tangling of long hair is the subject of a patent awarded to Simoniz Co., Chicago, Ill.

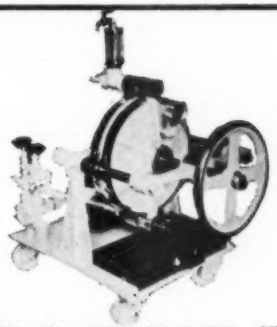
A shaving lotion claimed to stimulate tissue growth and cover raw nerve endings named First, is being market tested by Carter Products, Inc.

Cosmetics will not be subject to the 10% cosmetic excise tax when sold or given away as premiums or prizes according to a ruling of the Internal Revenue Service.

A manufacturer may specify minimum prices by simply notifying wholesalers and retailers under the new Virginia fair trade law. Under it there is no need for manufacturers to negotiate written contracts with wholesale and retail distributors. The new law which is the first of its kind to be incorporated in a state fair trade act becomes effective July 1.

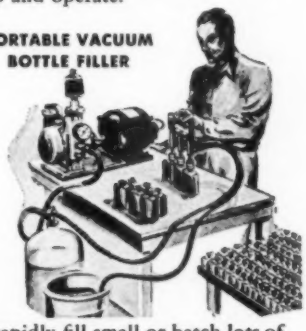
A new lipstick formulated with royal jelly has been launched by the DuBarry div. of Hudnut Sales Co. It is offered in eight shades. A new Cloudsilk Pearled face powder with royal jelly has also been introduced.

FILTERS AND BOTTLE FILLERS
for the Perfumer



MODEL EBW PORTABLE FILTER—This filter is recommended for small capacity requirements. Accomodates from 4 to 8 12¾" dia. filter disks. Easy to set-up and operate.

PORTABLE VACUUM BOTTLE FILLER



Will rapidly fill small or batch lots of material at lowest cost. Fills bottles to uniform height without loss of material. Interchangeable spouts for filling shaker-type bottles to gallons.

ASBESTOS FILTER SHEETS
Various Sizes

Ertel Asbestos Filter Sheets for ultra polished brilliance are used for many fine perfumes and cosmetics. Available in 10 grades to fit all standard filters. Write regarding samples for superior result tests in your filter.

Write for Illustrated Catalog

ERTEL ENGINEERING CORP.
10 FAIR ST., KINGSTON, N. Y.
Branch Office & Showroom
New York City

Trade Literature

Annual Report 1956 of Dechema Deutsche Gesellschaft fur chemisches Apparatewesen has been published and copies will be forwarded to interested parties by the Society, provided that stocks are still available. It contains an account of the numerous lectures organized by Dechema, the journals "Chemie - Ingenieur - Technik" and "Werkstoffe und Korrosion", the Dechema Monographs, the "Erfahrungsaustausch", the "Dechema-Werkstoff-Tabelle" (third edition) and other publications.

Henry Troemer, Inc. announces the publication of a new Laboratory Weight Catalog and handbook. The booklet reviews construction and tolerance details for laboratory and pharmaceutical weights, including micro, semi-micro and general purpose weights.

M. Michel and Co. has published a data sheet on Cachalot brand fatty alcohols shows typical uses for these lauryl, cetyl, stearyl, and oleyl alcohols. It is available to research, production, development, and purchasing men.

A technical bulletin on heavy duty Vertical Mixers has been published by Sprout, Waldron & Co., Inc. After a discussion of the advantages of Vertical Mixers, the bulletin describes in detail the operation of the Sprout-Waldron Mixer with its Thoro-Flo feature.

A new leak detection method for a pressurized system now in use, in which nitrous oxide is used in conjunction with infrared analyzers, has prompted the release of a Nitrous Oxide Technical Information Bulletin by Ohio Chemical and Surgical Equipment Co.

Fritzsche Brothers, Inc. has published a 45 page illustrated brochure entitled Fritzsche Values to introduce the users of essential oils, aromatic chemicals and basic perfume and flavor raw materials to the production facilities at their New York and Clifton, N.J. plants. Copies are available upon request to the company.

The 1958 Dow Corning Reference Guide, reportedly the largest and most complete silicone catalog ever published, describes over 150 commercially available Dow Corning silicone products. The catalogue contains detailed charts, tables, graphs and data on properties and performance. Cross indexed for ready reference.

A booklet announcing "Roche" Aromatics, completely synthetic Linalool and Linalyl Acetate, has been published by the Aromatics Division of Hoffman-La Roche Inc.

An Illustrated Booklet entitled "From Fats to Fatty Alcohols," a study of chemical history, has been published by Dehydag. It includes types and technical data of fatty alcohols and a section of Dehydag-Products and their application.

Emulsol Chemical Corp. has prepared two new technical bulletins of special interest to the soap, cosmetics and chemical specialties fields. The first one concerns Emcol E-607, a quarternary ammonium compound, with applications as a non-irritating germicide, deodorant or cationic emulsifier. The second is on Emcol E-607S. Ask for Bulletin #52.

Experimental data and practical manufacturing experience of over 100 years' specialization in beeswax and beeswax compounds are at your service without cost or obligation. Write about your beeswax problems to

WILL & BAUMER CANDLE CO., INC.
Dept. AP, Syracuse, N.Y. • Established 1855

Bleached White Beeswax—Yellow Beeswax—Stearic Acid—Spermaceti—Ceresine—Composition Waxes—Red Oil

PERSONALITIES

Herman Bogaty has been appointed an assistant research director for the Toni Co., a division of The Gillette Co. Formerly, he was employed by Harris Research Laboratories, an independent subsidiary of Gillette.

Herman Bogaty

Robert E. Leber has been appointed general sales manager of Ansbacher-Siegle Corp. Mr. Leber will be located at the company's headquarters in Rosebank, Staten Island, New York and will be responsible for the sales of all Ansbacher-Siegle products which include organic pigments, dispersions and flush colors.

Robert E. Leber

Walter P. Lantz was named Advertising Director for Shulton, Inc., according to a recent announcement by George L. Shultz, president. Mr. Lantz was formerly associated with Bristol-Myers as Vice President of the Products Division and, more recently, Secretary of the General Executive Committee. At Shulton, Mr. Lantz will be responsible for the firm's over-all advertising program, reporting to Frank Carpenter, vice president.

Walter P. Lantz

Mrs. Babs Lee formerly beauty editor of Vogue magazine is now creative consultant for Johnson & Johnson.

Max Factor Jr., president of Max Factor & Co., Hollywood, Calif. and Mrs. Factor are celebrating their silver wedding anniversary on a trip to Europe.

Paul J. Cardinal, vice president of Hoffman-LaRoche Inc. has been elected a vice president of the National Vitamin Foundation, Inc.

Miss Claude Metzger, secretary and administrator of Etabs. Bing Fils, S. A., Paris, France flew back to Paris March 27 following a three weeks' visit in the United States. It was her first trip to the United States and much of her time was spent in studying the American market for fragrance products.

Francis M. Putnam has been elected president of the Potter Drug & Chemical Co. succeeding Samuel M. Best.

Dr. Emery D. Robert formerly director of research for the Lady Esther Co., Chicago is now a research consultant to the trade with offices at 3121 N. Sheridan Road, Chicago 14, Ill.

Dr. William O. Bruell of the Polarome Manufacturing Co. left early last month for an extended European voyage. His four months tour will take him through some twelve countries where he will visit representatives of Polarome's International division and also consult with Pierre Chauvet & Cie, regarding their U. S. sales program.

Miss Hazel Bishop, president of Perfemme, Inc. discussed consumer motivation in the purchase of cosmetics before the Chemical Industry Assn. in the Chemists Club, New York, April 1. Miss Bishop gave instances of success and failure as related to consumer motivation.

Miss Marie V. Carroll, executive secretary of the California Cosmetic Assn. was a recent welcome visitor to New York.

Donald Danilek, son of Joseph A. Danilek, president of Mary Chess Inc. was recently married to Miss Jane Elizabeth Till. Mr. Danilek is a senior in Princeton University.

Annette Green, director of publicity for Lentheric has moved to new offices at 666 Fifth Ave., New York 19, N.Y.

John Thompson has been appointed vice president of Dodge & Olcott of Canada, Ltd. the Canadian affiliate of Dodge & Olcott, Inc., New York. Mr. Thompson served as manager of the Toronto branch office for four and a half years and assumed his new position April 1.

R. W. Moncrieff the noted authority on odor who has done much very useful research on the subject has returned to England after a month's stay in the United States most of which time was spent with Airkem Inc. for whom he is a consultant.

John A. Treat, vice president of Elizabeth Arden, is serving as chairman of the Cosmetics Committee in the Commerce and Industry Division of The Salvation Army 1958 Appeal.

Dr. Fred Levit of Chicago has been named recipient of the 1958 Toni-Gillette Fellowship for dermatology at the Northwestern University Medical School.

Reed M. Badgley has been appointed assistant new products manager for the Lehn & Fink Division of Lehn & Fink Products Corp.

Joseph A. Danilek, president of Mary Chess Inc. has just returned from a "quickie trip" to the West Coast. Not only did he see the company's West Coast representative, Mrs. Lillian Taylor, but he also consumated the deal for a new location for The Beverly Hills Retail Shop.

Dr. Albert J. Frey, vice president in charge of the technical department of Hoffman-LaRoche Inc., has retired after 42 years of service with the company. Dr. Frey is succeeded by Dr. Raeto Schett, who has been his assistant for the past two years.

Raymond Stevens, president of Arthur D. Little, Inc., has assumed the duties of chief executive officer of that industrial research company.

Maison G. deNavarre Chicago S.C.C. Speaker

The March meeting of the Chicago Chapter of the Society of Cosmetic Chemists enjoyed an informative address by M. G. deNavarre, entitled "The Interference of Non-Ionic Emulsifiers with Preservatives VIII", which included recent research results.

Hazel Bishop Inc. May be Taken Over by Financial Group

A prospective purchaser not in the cosmetic business, according to Raymond Spector, president of Hazel Bishop Inc., which is "one of the most important financial groups in the country" is negotiating with him for the purchase of his 62% ownership of the company. Under present negotiations Mr. Spector reported to stockholders that he would remain with Hazel Bishop Inc. under a five year contract as chief executive officer.

Hazel Bishop Inc. will spend $3,000,000 for advertising in 1958. Mr. Spector also reported that the company is now budgeted to make substantial profits on $10,000,000 in sales. Executive Vice President Joseph Salganik predicted at the stockholders meeting that sales would be over 15 million dollars in the supermarket field on which the company is concentrating its efforts. Hazel Bishop cosmetics are reported to be the only cosmetic line in all seven of the large grocery chains. Mr. Spector claimed that the line is also No. 1 in the variety store field where it did a business last year of three million dollars with Woolworth alone.

1000 of 1200 Cosmetics in Last 5 Years Didn't Sell

In an interesting talk at the symposium of the American Society of Perfumers, Frazer Sinclair, publisher of Beauty Fashion gave the following reasons why 1000 of the 1200 cosmetic products introduced in the last five years are now commercially insignificant: 1. Temporary-products not intended to last, like a new lipstick color; 2. and 3. Imitation or duplication; 4. Gimmicks; 5. Poor quality; 6. Lack of individuality; 7. Promised too much; 8. Product alien to company's line; 9. Failure in dispensin medium; and 10. Marketing inexperience.

Morris J. Root Aerosol Lecturer

What non-technical personnel in the cosmetics industry should know about aerosol technology was discussed by Morris J. Root of G. Barr and Co. in a lecture recently at the University of Chicago downtown center. Mr. Root is technical director of G. Barr and Co., custom aerosol producers. He outlined the evolution of pressure packaging, pointing out how aerosol research and development have opened up important new markets in the cosmetics field. He also demonstrated how aerosol technology has made possible the new nitrogen-propelled spray products, such as pressure-packaged dentifrices. The lecture was one in a series on cosmetic technology being offered by the University of Chicago in cooperation with the Chicago Chapter of the Society of Cosmetic Chemists.

Hazards in Use of Glass Aerosols Emphasized by T.G.A.

Cosmetic manufacturers using glass aerosols as containers are warned of the hazards which should be avoided in a bulletin issued to members by the Toilet Goods Assn.

Palmers Ltd. of Toronto Sold to W. Lloyd Wood

W. Lloyd Wood has purchased Palmers Ltd. of Montreal, Canada the Canadian distributor of a number of United States distributors and the office has been moved to 64 Gerrard St., Toronto.

Federal Fair Trade Law or Federal Anti-Loss Leader Law?

Sen. Hubert Humphrey has ordered a poll of private industry to help him determine whether a federal fair trade law or a federal anti-loss leader law would best halt "further deterioration of fair trade" according to a dispatch in Drug Trade News.

look for the symbol of the RETORT
YOUR GUARANTEE
OF MATCHLESS QUALITY,
PURITY, UNIFORMITY
Behind the symbol of the Retort stands three generations of family pride and "know-how" in Essential Aromatics, natural and synthetic flavors, perfumer's specialties. Made in the West's most modern plant. The Retort is your guide to dependability.
F. Ritter & Co.
Los Angeles 39, California
Branch Offices in Principal Cities

A NEW SERVICE
GOLD FOIL FOLDING BOXES
Yes, now you can afford the luxury of Gold Foil Folding Boxes, because we are specialists in supplying small quantities. Serving the cosmetic trade for over 25 years.
HEADQUARTERS FOR . . .
• Face Powder Boxes • Folding Boxes • Labels & Die Cutting
F. WIKFELD
STANDARD DRUG LABEL & BOX CO.
265 Canal St. • New York, N. Y. • CAnal 6-5144

NOW OVER 5100 BIOS CHEMICALS
Including
ALL NEW & RARE
SYNTHETIC & NATURAL
RAW MATERIALS
For Perfumes & Flavors
Ask for our new complete catalogue
BIOS Laboratories, Inc.
17 West 60th St. New York 23, N. Y. Plaza 7-8171

MARKET REPORT

Spring Trend Optimistic

A note of optimism prevails throughout the essential oil and aromatic chemical market. Preparations on the part of the soft drink trade for a seasonal pickup in retail sales are expected to swell sales of an extended line of flavoring oils and orders for the account of the proprietary trade should likewise increase in volume for suntan preparations and an extended line of finished goods that normally enjoy a wide sale during the spring and summer months.

PRICE CHANGES

Advances	Current	Previous
Orange oil, Calif.		
Coldpressed	$ 2.35	$ 1.75
Distilled	0.90	0.70
Oil bergamot	13.50	13.00
Oil bois de rose	2.25	2.15
Oil orange, Floridian	1.25	1.10
Linalool	3.25	3.05
Linalyl acetate, 90-92%	3.40	3.20
Sodium hydroxide, Clts, Cwt.		
Flake	5.20	4.30
Solid	4.80	4.30
Declines		
Oil cananga		
Native	$ 7.00	$ 7.60
Rectified	9.00	9.55
Cocoa butter	0.93	0.96
Oil geranium, Turkish	4.75	5.25
Oil petitgrain	2.60	2.70
Menthol, Brazilian	5.60	6.00
Red oil, tanks	0.16	0.17½

(Prices per pound unless otherwise specified.)

ORANGE OILS SCARCE—

Virtually all varieties of orange oil are scarce. With the heavy consuming season in the beverage and food trades about at hand, the tight supply position promises to be more keenly felt in the weeks ahead. Floridian orange oil prices are edging upward with the latest advance establishing the spot market at $1.25 to $1.30 per pound.

REVERSAL IN BOIS DE ROSE—

Sudden withdrawal of cheap offers of bois de rose oil from Peru brought about a complete reversal in the downward trend of prices that had been noted for more than a year. Spot prices were moved up 10 cents per pound. Some trade observers are looking forward to a further upward price trend in the market.

STRONG OUTLOOK IN VANILLA—

April and May requirements have been fairly well taken care of out of two large arrivals here from Madagascar over the past month. The latest shipment to arrive had approximately 60 tons aboard with an estimated value exceeding a million dollars. The earlier arrival was equally as large. Prices on both Mexican as well as Bourbon vanilla beans are firm, with importers and dealers anticipating another spurt in buying to cover June forward requirements.

CANANGA OFF SHARPLY—

In keeping with a rather sharp drop in shipping prices from the primary center, spot prices for oil cananga showed losses of 55¢ to 60¢ per pound. Some observers attributed the decline to a more competitive situation in ylang ylang. Spot prices on native oil dropped to $7 to $7.50 per pound according to quantity. Rectified oil was reduced to $9 to $9.50.

MENTHOL EASIER—

An easier tone developed in menthol with natural product from Brazil declining 40 cents to the basis of $5.60 to $5.70 per pound. Synthetic laevo menthol was unchanged at $6 per pound. The easier tone in the natural product as well as the low prices for citronella oil threaten to carry the synthetic menthol prices lower. Shipping prices on the natural product from Brazil have been declining quite rapidly. Unless some unforeseen development should occur, spot prices are likely to go below $5 in the not distant future, according to some importers.

LINALOOL, LINALYL ACETATE UP—

Linalool and linalyl acetate have turned upward for the first time in a long while. Linalool moved up 20 cents to the basis of $3.25 to $4 per pound. The reversal in the trend reflected a sudden jump in the basic material, oil bois de rose.

SODIUM HYDROXIDE UP—

Dry forms of sodium hydroxide, flake and solid, have been advanced 50¢ to 60¢ per cwt., to reflect steadily mounting costs. The new carlot price for flake material is $5.20 per cwt., while 76 percent solid hydroxide was moved up to $4.80. The new quotations became effective April 1.

SHORTAGE TO CONTINUE IN STYRAX—

There appears to be little hope for an immediate easing in the shortage of Asiatic styrax gum. Late advices from Turkey indicated that no auctions are likely to be held for another week or two. Earlier auctions have been postponed. In the event there is an auction within a week or two this will mean that goods cannot be expected to reach this market until next month or possibly June. Spot prices are entirely nominal at $1.65 to $1.70 per pound.

ALCOHOL SUPPLY EASES—

Alcohol producers have been feeling a loss in sales as the result of the recession in general business, and because of recent plant improvements, there is more alcohol available in the market than there was in the final quarter of last year at which time there had been talk of a possible rise in prices. Takings for the account of the proprietary and toiletry trades have been holding up in fairly good volume, but there has been some tapering off in industrial uses.

GLYCERIN UNSETTLED—

Late reductions in a competitive product, pentaerythritol, a jump in stocks to a high level of 81 million pounds, and reports of additional production of synthetic glycerin coming into the market in July or August have all tended to have a depressing influence on the tone. A general decline in glycerin prices has been expected for many months and the increasingly bearish position of the market serving as a more serious threat to the price structure of the market.

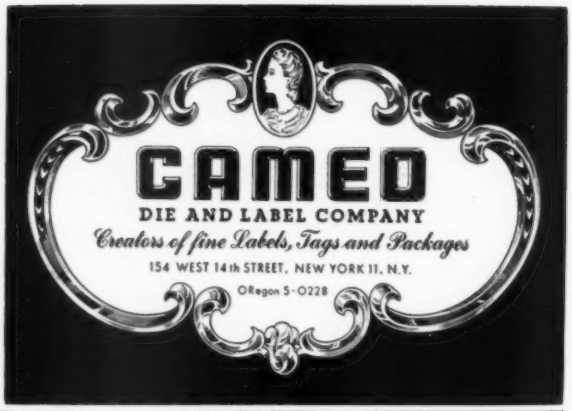
THE C. E. ISING CORPORATION
MANUFACTURING CHEMISTS
AROMATIC PRODUCTS

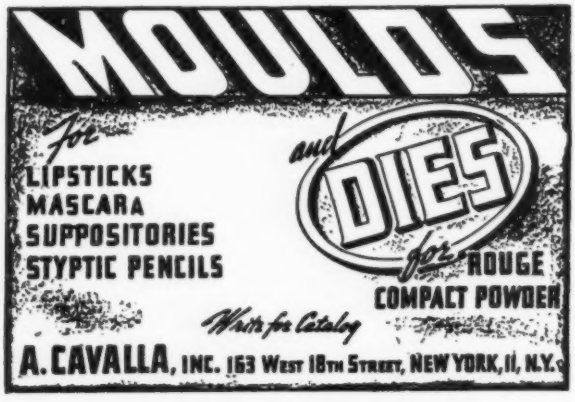
•

MASKING ODORS for INDUSTRIES
FLORAL BASES, ISOLAROMES
(Fixatives)

TRUODORS
(For Perfumes and Toilet Waters)

FOUNDED 1908
FLUSHING NEW YORK





Aromatic Chemicals
FOR PERFUMERY AND FLAVORS

Iso Propyl Quinoline • Isobutyl Quinoline
Ethyl Anthranilate • Butyl Anthranilate
Linalyl Anthranilate • Linalyl Isobutyrate

FAIRMOUNT
CHEMICAL CO., INC.
600 Ferry Street Newark 5, N. J.

WE BUY FOR CASH

CLOSE-OUTS • SURPLUS

Bottles • Caps • Jars • Containers • Chemicals • Closures
Cosmetics of any Descriptions
Also Business Small or Large . . .

UNIVERSAL OUTLET CO.
1 E. 15th St. • New York 3, N.Y.
Telephone Oregon 5-9444—
Oregon 5-8568

1905 — 1958

FIFTH AVENUE PROTECTIVE ASSOCIATION

A
NATIONALLY USED
COLLECTION AGENCY
covering the U. S. through
its own personal representatives

142 Lexington Avenue New York 16, N. Y.
(Our Own Building)

B-W LANOLIN U.S.P.

EVENTUALLY—For better creams, with economy

B-W Lanolin the superior quality puts into your cream that which gives the skin that smooth soft velvety feeling.

B-W Lanolin will never cause your cream to darken, is best by test and contains over 15% free and combined Cholesterol.

No other base used in your cream, equals the merits of B-W Lanolin.

B-W HYDROPHIL (Absorption Base) Made in U.S.A.

BOPF-WHITTAM CORPORATION

Executive Office, Laboratory and Factory: Linden, N.J.
America's Original Lanolin Producer
ESTABLISHED 1914
Sales Office: 509 Fifth Ave. New York, N.Y.

CLASSIFIED ADVERTISEMENTS

Rates per line, per insertion: Situations Wanted and Help Wanted, 50c. All other classifications, $1.00. Please send check with copy.

HELP WANTED

WANTED FOR CALIFORNIA

Sales representative to sell complete line of Essential Oils and Perfumery Raw Materials for firm with excellent reputation. Preferably, the applicant would be selling allied lines, now, to prospective users of our products. Write to: Box #3169, AMERICAN PERFUMER & AROMATICS, 48 WEST 38th ST., NEW YORK 18, N.Y.

CHEMIST COSMETIC, experienced in the manufacture of Toilet Preparations. Excellent opportunity for qualified man. Send resume with complete information, including salary requirements. Write Box #3170, American Perfumer & Aromatics, 48 W. 38 St., New York 18, N.Y. for confidential interview.

ACCOUNTANT, with Degree in Commerce and Finance. Experienced on General Books, Costs, Correspondence and Business Procedure. Excellent opportunity for qualified man. Plant location in Binghamton, N.Y. Send resume with complete information, including salary requirements. Write Box #3171, American Perfumer & Aromatics, 48 W. 38 St., New York 18, N.Y. for confidential interview.

MISCELLANEOUS

FILTERING PROCESSING
PACKAGING MACHINERY
new, used and rebuilt, bought, sold, exchanged, rented!
ACE PROCESSING EQUIPMENT CO.
6823 S. Kenwood, Chgo 37, Ill.

FOR FASTER POSTAL SERVICE:

- USE ZONE NUMBERS—
  USE YOURS IN YOUR RETURN ADDRESS—
  THEY'RE PART OF YOUR ADDRESS!
- SEPARATE LOCAL FROM OUT-OF-TOWN LETTERS!
- BUNDLE YOUR MAIL!
- MAIL BY NOON!
- "MAIL EARLY IN THE DAY—IT'S THE FASTER WAY!"

PROFESSIONAL SERVICE

"L'ART de la PARFUMERIE par EXCELLENCE"
And its Application to the Industry
DR. JEAN JACQUES MARTINAT
PERFUMER-CHEMIST CONSULTANT

Perfumes
Cosmetics
Toilet Articles
Soaps
Flavors

Creations of Highly Original Perfumes
Duplications of Most Difficult Fragrances
Unique Kind of Professional Services.

Kindly Inquire
333 WEST 52ND STREET, NEW YORK 19, N. Y.
TEL. PLAZA 7-3861

RESEARCH AND DEVELOPMENT
Cosmetic Formulation and Improvement

SNELL

Toxicology, skin-irritation studies, analyses and formulations, soap and syndet evaluations. Free booklet: "How to Develop Successful New Cosmetics."

FOSTER D. SNELL, INC.
29 West 15th St., New York 11, N. Y.
WAtkins 4-8800

LEBERCO LABORATORIES
Irritation Studies—Sensitivity Tests
Toxicity and Safety Tests on
Shampoos—Cold Wave Lotions—All Cosmetics
Pharmaceutical and Cosmetic Research
Hormone Assays—Bacteriological Studies
127 HAWTHORNE ST., ROSELLE PARK, N. J.

Miniature Perfume Bottles
from ⅛ dram to ½ oz.
Handmade Glass Novelties
Miniature Glass Funnels
SPECIAL ORDER WORK
KENBURY GLASS WORKS
132 W. 14th Street
New York 11, N. Y.

Carl N. Andersen, PhD
Consulting Chemist
Cosmetics, Soaps and Synthetic Detergents
OFFICE AND LABORATORY
150 South Highland Avenue, Ossining, N.Y.
Phones: Wilson 1-1550; Wilson 1-7959

Index OF ADVERTISERS

Aerosol Techniques, Inc. 58
Alpine Aromatics, Inc. 59
American Aromatics, Inc. 6
American Cholesterol Products, Inc. 44-45
Anderson, Carl N. 89
Ansbacher-Siegle Corp. ..... —
Archer-Daniels-Midland Chemical Products Division ..... —
Armstrong Laboratories ..... —
Aromatic Products, Inc. ..... —
Avon Products 66

Bertrand Freres ..... —
Bios Laboratories, Inc. 86
Boake, Roberts & Co., Ltd. A. ..... —
Bopf-Whittam Corp. 88
Builders Sheet Metal Works 23
Bulgarska Rosa ..... —

Cameo Die & Label Co. 88
Camilli, Albert & LaLoue, Inc. 90
Carr-Lowrey Glass Co. ..... —
Cavalla, Inc., A. 88
Charabot & Co., Inc. ..... —
Chauvet & Co., Pierre 84
Chiris Co., Antoine ..... —
Citrus & Allied Essential Oils Co. .. —
Classified Advertisements 89
Continental Can Company, Hazel Atlas Glass Division ..... Insert 65
Continental Filling Corp. 29, 58
Croda, Inc. ..... —

DeLaire, Inc. ..... —
Descollonges, Inc. ..... —
Dodge & Olcott, Inc. 30
Dow Chemical Co., The ..... —
Dragoco, Inc. 68-69

Emulsol Chemical Corporation ..... —
Ertel Engineering Corp. 83
Esrolko, Ltd. 51

Fairmount Chemical Co., Inc. 88
Felton Chemical Co., Inc. ..... —
Fifth Avenue Protective Assoc. 88
Firmenich & Co. ..... —
Fisher Chemical Co., Inc. ..... —
Fluid Chemical Co., Inc. ..... —
Foilcraft Printing Corporation ..... —
Fritzsche Brothers, Inc. .... Insert 71-74

General Chemical Div., Allied Chemical & Dye Corp. 15
Givaudan-Delawanna, Inc. .. Insert 20-21
Glidden Company, The ..... —
Goldschmidt Chemical Corp. ..... —

Halby Products ..... —
Hazel Atlas Glass Division Continental Can Company .. Insert 65
Heine & Company ..... —
Heyden-Newport Chemical Corp. .. 28
Hoffman-LaRoche, Inc. 13

Ising Corporation, C. E. 88

Katz & Co., Dr. Alexander, Div. of F. Ritter & Co. 86
Kenbury Glass Works 89
Knapp Products, Inc. ..... —
Kohnstamm & Company, Inc. 7

Lambert Engraving Company 1
Lanitis Bros., Ltd. 8
Lautier Fils, Inc. 63
Leberco Laboratories 89
Leeben Color & Chemical Co. ..... —
Leonhard Wax Co., T. ..... —
Leuders & Co., George 2

Maryland Glass Corp. 22
Martinat, Jean Jacques, Dr. 89

Old Empire, Inc. 58
Owens-Illinois Glass Co. 4-5

Palmer Co., H. L. ..... —
Parento, Inc., Compagnie ..... —
Parsons-Plymouth, M. W. ..... —
Penick & Co., S. B. 53
Perry Bros. ..... —
Polak's Frutal Works 61
Polak & Schwarz, Inc. ..... —
Polarome Manufacturing Company, Inc. 84
Powr-Pak, Inc. 58
Private Label Cosmetics Co., Inc. ... —
Protean Chemical Corp., The ..... —
Protection Chemical Products Co. .. —

Reed Research Corp., The 26
Reheis Co., Inc. 12
Rhodia, Inc. ..... —
Richford Corp. 55
Risdon Manufacturing Co., The .... —
Ritter & Co., F. 86
Robertet & Co., P. ..... —
Roure-Dupont, Inc. 24-25

Schimmel & Co., Inc. 48
Scovill Mfg. Co. ..... Insert 47
Seil, Putt & Rusby, Inc. ..... —
Shulton, Inc. 18
Snell, Foster D. 89
Standard Dry Label & Box Co. 86
Sun-Lac, Inc. ..... —
Synfleur Scientific Labs, Inc. 27
Syntomatic Corporation ..... —

Thomasson of Pa., Inc. 58
Tombarel Products Corp. ..... —

Universal Outlet 88
Ungerer & Co. .... Inside Front Cover

Van Ameringen-Haebler, Inc. 16-17
Vanderbilt Co., R. T. ..... —
Van Dyk Company, Inc. ... Back Cover
Verley & Company, Albert 11
Verona Chemical Co. Inside Back Cover

Webb & Co., Inc., R. D. 82
Whittaker, Clark & Daniels ..... —
Will & Baumer Candle Co., Inc. 84

Rose
15 E. 48th St., New York

"MAXIMAROME"
"Naturals"
PLAZA 3-6070
CAMILLI, ALBERT & LALOUE, INC.

Jasmin
Grasse, France Tel: 870

Romance!

In the cosmetics industry, romance is probably the greatest single sales-motivating force. And the cosmetics chemist knows that fragrance plays a dominant part in her selection of cosmetics.

That's why so many manufacturers who are meticulous about fragrance use Verona extenders and developers to bring out the latent brilliance of the compound . . . *and save money in the process!*

Send for samples of some of the Verona specialties listed at the right — and see for yourself how effectively they help you hit — and *hold* — the high notes!

A FEW VERONA SPECIALTIES

RESEDALIA, an acetal.
VERONOL, an aldehyde.
CYCLAMAL, cyclamen aldehyde.
ROSANOL, an acetal.
PHENYL ACET ALDEHYDE PHENYL GLYCOL ACETAL
TERTIARY BUTYL DI METHYL CUMARIN
BERGAMOT SYNTHETIC, P-1104.
FLOWER OIL WHITE LILAC.

VERONA
Aromatics Dept.

PRODUCTS BUILD SALES FOR *Your* PRODUCTS

VERONA CHEMICALS A Division of Verona-Pharma Chemical Corp.

Plant and Main Office: 26 Verona Avenue, Newark, N. J. 1210 Rosedale Avenue, Chicago, Ill.

WITH

DISTINGUISH YOUR PRODUCTS

VAN DYK'S SCENTALLURES

OUR SELECTIVE
PERFUME COMPOUNDS
FOR YOUR
GLASS, AEROSOL
OR POLYETHYLENE
PACKAGED FRAGRANCES
HAIR PREPARATIONS
COSMETICS
MAKEUP
SHAMPOOS
LOTIONS
SUNTAN PREPARATIONS.

SINCE 1903 Van Dyk BELLEVILLE, N.J.

VAN DYK

AND COMPANY, INC.
BELLEVILLE, NEW JERSEY

NEW YORK · CHICAGO · LOS ANGELES · TORONTO